Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 30.03.96 Test oil : ISO 4113

Combination No. : 9 400 083 449

Injection pump

Pump designation : PES6A100D320/3RS2691

EP type number : 9 410 230 025

Governor

Governer design. : RSV400...1100A2C2209

Governer no. : 9 420 083 201

Cust. part No. : 3352891

Customer-spec. information Customer : CUMMINS : 6 CT 8.3 L Motor

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 bar Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values ____

BEGINNING OF DELIVERY

Test pressure bar: 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05 Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

Beginning of delivery differende

and maximum rack

: 10.50 travel travel : 70.50 Tolerance mm : + 1.50 Difference * CS : 3.50

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 10.15 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 88.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 3.0

	+
Spreed	+ control lever
Tolerance	+ position degree : 89.0
cm3/1000 strokes : 3.5	tolerance degree : + 4.0
THE TOOL OF TROOT	1 total and degree 1 1 110
Check tolerance	RATED SPEED
cm3/1000s. : 8.0	T RATED SPEED
CIID/ (CENZO).	rack travel mm : 9.10
No. 1	
Del. quantity	+ Rated speed rpm : 1145
cm3/1000 strokes : 12.5	+ Tolerance 1/min : +- 5
Tolerance	†
cm3/1000 strokes : +- 2.0	+ rack travel mm : 4.00
Check tolerance	Rated speed rpm : 1185
cm3/1000s. : +- 4.5	+ Tolerance 1/min : + 15
Spreed	+
Tolerance	+ rack travel mm : 0.85
cm3/1000 strokes : 5.5	+ Tolerance mm : $+$ 0.55
Check tolerance	+ Rated speed rpm : 1300
cm3/1000s. : 9.0	1
	1
(B) SETTING OF INJECTION PUMP	+ LOW IDLE
WITH GOVERNOR	
WE 117	1
	+ control lever
	position degree : 67.0
GUIDE SLEEVE POSITION	+ tolerance degree : + 4.0
	+
Rated speed rpm : 800	+ Setting point w/out bumper spring
,	+
Rack travel in mm: 0.50	Rated speed rpm : 450
Tolerance mm : +- 0.20	+ rack travel mm : 4.60
	
governor spring	+ Testing:
pre-tension	1
click setting x : 2.50	Rated speed rpm : 450
or or octania v	+ rack travel mm : 5.10
	+ Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	1
LARE COMO APPRAENT UL LARE EQUIA OLO	rack travel mm ; 2.00
Rated speed rpm : 1100	+ Rated speed rpm : 600
Aneroid pressure	+ Tolerance 1/min : + 30
hPa : -	ioterance initial
Del. quantity	Rated speed rpm : 100
	T have speed thin . Too
	+ CRT mm min. :> 19.00
Tolerance	† CRT mm min. : > 19.00
cm3/1000 strokes : + 1.0	T
Check tolerance	TOPOUT CONTROL
cm3/1000s. : + 3.0	+ TORQUE CONTROL
Spreed	† 2.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4
Tolerance	+ Rated speed rpm : 1100
cm3/1000 strokes : 3.5	+ rack travel mm : 10.15
Check tolerance	† Tolerance mm : +- 0.05
cm3/1000s. : 8.0	
	+ Rated speed rpm : 550
	+ rack travel mm : 10.20
	+ Tolerance mm : +- 0.10
CONTROL LEVER	+
	+ Rated speed rpm : 400
	+ rack travel mm : 10.75

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : -Rated speed rpm : 550

Del. quantity

cm3/1000 strokes : 74.0

Tolerance

cm3/1000 strokes : + 2.0

Check tolerance

cm3/1000s. : + 4.0

BREAKAWAY

Rack travel in mm: 9.10
Rated speed rpm: 1145
Tolerance 1/min: +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : +- 1.00 Del. quantity cm3/1000 strokes : 142.0 Tolerance

cm3/1000 strokes : + 8.0

Check tolerance

cm3/1000s. : + 11.0

LOW IDLE

Del. quantity

cm3/1000 strokes : 12.5

Tolerance

cm3/1000 strokes : + 2.0

Check tolerance

cm3/1000s. : + 4.5

Spreed

Tolerance

cm3/1000 strokes : 5.5

Check tolerance

cm3/1000s. : 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 30.03.96 Test oil : ISO 4113

Combination No. : 9 400 083 449AB

Injection pump

Pump designation : PES6A100D320/3RS2691

EP type number : 9 410 230 025

Governor

Governer design. : RSV400...1100A2C2209

: R

Governer no. : 9 420 083 201

Cust. part No. : 3352892-VERSA001

Customer—spec. information Customer : CUMMINS Motor : 6 CT 8.3 Power KW : 125.1

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : +- 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05
Check
tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm: + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : + 1.50
Difference ° CS : 3.50

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 10.65 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes :

n3/1000 strokes : 92.5

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 3.0

+	
Spreed	control lever
Tolerance	position degree : 86.0
cm3/1000 strokes : 3.5	tolerance degree : +- 4.0
1	total drive degree 4.0
Check tolerance	RATED SPEED
cm3/1000s. : 8.0	RATED SPEED
CM3/10003 0.0	most denoted and a 0.40
Dal months.	rack travel mm : 9.60
Del. quantity	Rated speed rpm : 1045
cm3/1000 strokes : 12.5	Tolerance 1/min : +- 5
Tolerance	
cm3/1000 strokes : + 2.0 +	rack travel mm : 4.00
Check tolerance +	Rated speed rpm : 1085
cm3/1000s. : +- 4.5 +	Tolerance 1/min : +- 15
Spreed +	
Tolerance +	rack travel mm : 0.85
cm3/1000 strokes : 5.5	Tolerance mm : +- 0.55
Check tolerance +	Rated speed rpm : 1250
cm3/1000s. : 9.0	
+	
+	
(B) SETTING OF INJECTION PUMP	LOW IDLE
WITH GOVERNOR +	
1	control lever
	position degree : 67.0
GUIDE SLEEVE POSITION	tolerance degree : +- 4.0
1	total and degree ! . 410
Rated speed rpm : 800	Setting point w/out bumper spring
Nated Speed 1 pill : 000	occerng point wroat bamper spring
Pank thought in mm: 0.50	Pated speed rpm . 450
Rack travel in mm: 0.50	Rated speed rpm : 450
Rack travel in mm: 0.50 Tolerance mm: + 0.20	Rated speed rpm : 450 rack travel mm : 4.60
Tolerance mm : + 0.20	rack travel mm : 4.60
Tolerance mm : + 0.20	
Tolerance mm : + 0.20 governor spring pre-tension	rack travel mm : 4.60 Testing:
Tolerance mm : + 0.20	rack travel mm : 4.60 Testing: Rated speed rpm : 450
Tolerance mm : + 0.20 governor spring pre-tension	rack travel mm : 4.60 Testing: Rated speed rpm : 450 rack travel mm : 5.10
Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.50	rack travel mm : 4.60 Testing: Rated speed rpm : 450
Tolerance mm : + 0.20 governor spring pre-tension	rack travel mm : 4.60 Testing: Rated speed rpm : 450 rack travel mm : 5.10 Tolerance mm : +- 0.10
Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 4.60 Testing: Rated speed rpm : 450 rack travel mm : 5.10 Tolerance mm : +- 0.10 rack travel mm : 2.00
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000	rack travel mm : 4.60 Testing: Rated speed rpm : 450 rack travel mm : 5.10 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 600
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure	rack travel mm : 4.60 Testing: Rated speed rpm : 450 rack travel mm : 5.10 Tolerance mm : +- 0.10 rack travel mm : 2.00
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : -	rack travel mm : 4.60 Testing: Rated speed rpm : 450 rack travel mm : 5.10 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 600 Tolerance 1/min : + 30
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : - Del. quantity	rack travel mm : 4.60 Testing: Rated speed rpm : 450 rack travel mm : 5.10 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 600
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 92.5	rack travel mm : 4.60 Testing: Rated speed rpm : 450 rack travel mm : 5.10 Tolerance mm : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 600 Tolerance 1/min : +- 30 Rated speed rpm : 100
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 92.5 Tolerance	rack travel mm : 4.60 Testing: Rated speed rpm : 450 rack travel mm : 5.10 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 600 Tolerance 1/min : + 30
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 92.5 Tolerance cm3/1000 strokes : + 1.0	rack travel mm : 4.60 Testing: Rated speed rpm : 450 rack travel mm : 5.10 Tolerance mm : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 600 Tolerance 1/min : +- 30 Rated speed rpm : 100
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 92.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	rack travel mm : 4.60 Testing: Rated speed rpm : 450 rack travel mm : 5.10 Tolerance mm : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 600 Tolerance 1/min : +- 30 Rated speed rpm : 100
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 92.5 Tolerance cm3/1000 strokes : + 1.0	rack travel mm : 4.60 Testing: Rated speed rpm : 450 rack travel mm : 5.10 Tolerance mm : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 600 Tolerance 1/min : +- 30 Rated speed rpm : 100
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 92.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	rack travel mm : 4.60 Testing: Rated speed rpm : 450 rack travel mm : 5.10 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 600 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.00
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 92.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0	rack travel mm : 4.60 Testing: Rated speed rpm : 450 rack travel mm : 5.10 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 600 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.00
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 92.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance	rack travel mm : 4.60 Testing: Rated speed rpm : 450 rack travel mm : 5.10 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 600 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1000
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 92.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5	Testing: Rated speed rpm : 450 rack travel mm : 5.10 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 600 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 10.65
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 92.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance	rack travel mm : 4.60 Testing: Rated speed rpm : 450 rack travel mm : 5.10 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 600 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1000
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 92.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5	Testing: Rated speed rpm : 450 rack travel mm : 5.10 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 600 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 10.65 Tolerance mm : + 0.05
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 92.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance	Testing: Rated speed rpm : 450 rack travel mm : 5.10 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 600 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 10.65 Tolerance mm : + 0.05 Rated speed rpm : 500
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 92.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance	rack travel mm : 4.60 Testing: Rated speed rpm : 450 rack travel mm : 5.10 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 600 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 10.65 Tolerance mm : + 0.05 Rated speed rpm : 500 rack travel mm : 500 rack travel mm : 11.85
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 92.5 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 8.0	Testing: Rated speed rpm : 450 rack travel mm : 5.10 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 600 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 10.65 Tolerance mm : + 0.05 Rated speed rpm : 500
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 92.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance	Testing: Rated speed rpm : 450 rack travel mm : 5.10 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 600 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 10.65 Tolerance mm : + 0.05 Rated speed rpm : 500 rack travel mm : 11.85 Tolerance mm : + 0.05
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 92.5 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 8.0	rack travel mm : 4.60 Testing: Rated speed rpm : 450 rack travel mm : 5.10 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 600 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 10.65 Tolerance mm : + 0.05 Rated speed rpm : 500 rack travel mm : 500 rack travel mm : 11.85

Tolerance mm	: +- 0.05
Rated speed rpm rack travel mm Tolerance mm	: 850 : 11.00 : +- 0.10
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure	
Rated speed rpm	500
Del. quantity cm3/1000 strokes	: 97.5
Tolerance cm3/1000 strokes	: +- 2.0
Check tolerance	
cm3/1000s.	: +- 4.0
Aneroid pressure hPa	: -
Rated speed rpm	: 700
Del. quantity cm3/1000 strokes	: 103.0
Tolerance cm3/1000 strokes	: +- 2.0
Check tolerance cm3/1000s.	: +- 4.0
BREAKAWAY	
Rack travel in mm	: 9.60
Rated speed rpm Tolerance 1/min	: 1045
iocerance irmin	
STARTING FUEL DEL	IVERY
Rated speed rpm	: 100
rack travel mm Tolerance mm	: 20.00 : + 1.00
Del. quantity	
cm3/1000 strokes Tolerance	: 142.0
cm3/1000 strokes Check tolerance	: +- 8.0
cm3/1000s.	: + 11.0

Del. quantity		
cm3/1000 strokes	:	12.5
Tolerance		
cm3/1000 strokes	: +-	2.0
Check tolerance		
cm3/1000s.	: +-	4.5
Spreed		
Tolerance		
cm3/1000 strokes	:	5.5
Check tolerance		
cm3/1000s.	:	9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 30.03.96 : ISO 4113

Combination No. : 9 400 083 449AC

Injection pump

Pump designation : PES6A100D320/3RS2691

EP type number

: 9 410 230 025

Governor

Governer design.

: RSV400...1100A2C2209

Governer no.

: 9 420 083 201

Cust, part No. : 3352893-VERSA002

Customer-spec. information

Customer

: CUMMINS

Motor

: 6 CT 8.3 L

Power KW

: 134.0

TEST BENCH REQUIREMENTS

Inlet line

: 3.2

Test oil inlet

temp. °C

Tolerance °C

Overflow valve

: 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

bar

173.5

Tolerance bar

: +- 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

BEGINNING OF DELIVERY

per values _____

x inside diameter:

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

x length mm :

26.0

2.0

600

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm Tolerance mm

2.85

Check

REMARKS

: +- 0.10 tolerance mm

Rack travel in mm: 10.50 Tolerance mm

: ← 1.50

Firing order

: 1-5-3-6-2-

Phasing

: 0-60-120-180-240

: -300

Beginning of delivery differende

and maximum rack

travel

10.50

Tolerance mm

: +- 1.50

Difference ° CS :

3.50

BASIC SETTING

Rated speed rpm :

1100

Rack travel in mm: 10.25

Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes :

88.5

Tolerance

cm3/1000 strokes : +-

1.0

Check tolerance

cm3/1000s.

: +-3.0

	1		
Spreed		control lever	
Tolerance	1	position degree	: 89.0
cm3/1000 strokes :	3.5	tolerance degree	
CHEFTOOD SCIONES .	J.,	toterance degree	. ' ".0
Check tolerance		RATED SPEED	
cm3/1000s. :	8.0		
	1	rack travel mm	: 9.20
Del. quantity	1	Rated speed rpm	
cm3/1000 strokes :	16.0	Tolerance 1/min	
Tolerance	10.0	rocerance mann	
cm3/1000 strokes : +-	3.0	made democrat mm	. / 00
	2.0	rack travel mm	
Check tolerance	, <u> </u>	Rated speed rpm	
cm3/1000s. : +-	4.5	Tolerance 1/min	: ← 15
Spreed	+		
Tolerance	+	rack travel mm	
cm3/1000 strokes :	5.5	Tolerance mm	
Check tolerance	}	Rated speed rpm	
cm3/1000s. :	9.0	•	
•	1		
	+		
(B) SETTING OF INJECTIO	IN PUMP +	LOW IDLE	
WITH GOVERNOR	+		
	+		
	+	control lever	
		position degree	: 66.0
GUIDE SLEEVE POSITION	1	tolerance degree	
	1		
Rated speed rpm :	800 +	Setting point w/o	out bumper spring
Dank daniel de	7	Datad annul	
Rack travel in mm :		Rated speed rpm	
Tolerance mm : +-	0.35	rack travel mm	: 5.70
	†	Tooting	
governor spring	†	Testing:	
pre-tension	1	Data dan Laur	
click setting x :	2.5U †	Rated speed rpm	
	+	rack travel mm	: 5.60
	+	Tolerance mm	: ← 0.10
FULL LOAD DELIVERY AT F	ULL LOAD STOP +		
	+	rack travel mm	
Rated speed rpm : 1	100	Rated speed rpm	: 595
Aneroid pressure	1	Tolerance 1/min	: +- 30
hPa :	- +		
Del. quantity	1	Rated speed rpm	: 100
cm3/1000 strokes :	88.5	opeca i più	
Tolerance	<u> </u>	CRT mm min.	: > 19.00
	1.0 I	CAT HAM INTIE.	. > 17.00
cm3/1000 strokes : +-	1.0	-	
Check tolerance	7,0	TODOUE CONTESS!	
cm3/1000s. : +-	3.0 +	TORQUE CONTROL	
Spreed	+		
Tolerance	+	Rated speed rpm	: 1100
cm3/1000 strokes :	3.5	rack travel mm	: 10.25
Check tolerance	1	Tolerance mm	: +- 0.05
cm3/1000s. :	8.0		
UNIDA LOGGE	1	Rated speed rpm	: 500
	T	rack travel mm	: 12.20
	T	Tolerance mm	: + 0.10
CANTROL LEVES		interaction in	0.10
CONTROL LEVER	†	Dated speed now	: 750
	Ť	Rated speed rpm	
	+	rack travel mm	: 12.20

Tolerance mm Rated speed rpm rack travel mm Tolerance mm	: + 0.10 : 950 : 11.40 : + 0.10
FUEL DELIVERY CHA Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	RACTERISTICS : - : 500 : 103.0 : +- 2.0 : +- 4.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 750 : 116.0 : + 2.0 : + 4.0
BREAKAWAY Rack travel in mm Rated speed rpm Tolerance 1/min	: 9.20 : 1145 : + 5
STARTING FUEL DEL Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 100 : 20.00 : ← 1.00 : 142.0
LOW IDLE	

Del. quantity		
cm3/1000 strokes	;	16.0
Tolerance		
cm3/1000 strokes	: +-	2.0
Check tolerance		
cm3/1000s.	: +-	4.5
Spreed		
Tolerance		
cm3/1000 strokes	:	5.5
Check tolerance		
cm3/1000s.	:	9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 30.03.96 Test oil : ISO 4113

Combination No. : 9 400 083 449AG

Injection pump

Pump designation : PES6A100D320/3RS2691

EP type number : 9 410 230 025

Governor

Governer design. : RSV400...1100A2C2209

: R

Governer no. : 9 420 083 201

Cust. part No. : 3353251-VERSA006

Customer-spec. information
Customer : CUMMINS
Motor : 6 CT 8.3
Power KW : 133.2

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.85

Tolerance mm : +- 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

: 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Beginning of delivery differende

and maximum rack

Firing order

travel : 10.50
Tolerance mm : + 1.50
Difference °CS : 3.50

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 10.85
Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 97.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 3.0

4	•
Spreed	- control lever
Tolerance	position degree : 86.0
cm3/1000 strokes : 3.5	tolerance degree : +- 4.0
diker tood seroked . S.s	
Check tolerance	- RATED SPEED
	RATED SPECU
cm3/1000S, : 8.0	
†	- rack travel mm : 9.80
Del. quantity	Rated speed rpm : 1045
cm3/1000 strokes : 16.0	Tolerance 1/min : + 5
Tolerance	•
cm3/1000 strokes : +- 2.0	rack travel mm : 4.00
Check tolerance	- Rated speed rpm : 1085
cm3/1000s. : + 4.5	Tolerance 1/min : +- 15
Spreed	•
Tolerance +	rack travel mm : 0.85
cm3/1000 strokes : 5.5	Tolerance mm : +- 0.55
Check tolerance	Rated speed rpm : 1250
cm3/1000s. : 9.0	
CIRD 10000:	
T	•
(B) SETTING OF INJECTION PUMP	LOW IDLE
	LOW TOLE
WITH GOVERNOR +	•
†	
†	control lever
	position degree : 66.0
GUIDE SLEEVE POSITION +	tolerance degree : +- 4.0
†	
Rated speed rpm : 800 +	Setting point w/out bumper spring
+	,
Rack travel in mm: 0.50	Rated speed rpm : 400
Tolerance mm : + 0.20	rack travel mm : 5.10
Tolerance mm : + 0.20	rack travel mm : 5.10
Tolerance mm : + 0.20	
Tolerance mm : + 0.20 governor spring pre-tension	rack travel mm : 5.10 Testing:
Tolerance mm : + 0.20	rack travel mm : 5.10 Testing: Rated speed rpm : 400
Tolerance mm : + 0.20 governor spring pre-tension	rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60
Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.50	rack travel mm : 5.10 Testing: Rated speed rpm : 400
Tolerance mm : + 0.20 governor spring pre-tension	rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : + 0.10
Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : + 0.10 rack travel mm : 2.00
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000	rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 595
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure	rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : + 0.10 rack travel mm : 2.00
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : -	rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 595 Tolerance 1/min : + 30
Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : - Del. quantity	rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 595
Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 97.0	rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 595 Tolerance 1/min : + 30 Rated speed rpm : 100
Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 97.0 Tolerance	rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 595 Tolerance 1/min : + 30
Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 97.0 Tolerance cm3/1000 strokes : + 1.0	rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 595 Tolerance 1/min : + 30 Rated speed rpm : 100
Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 97.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 595 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.00
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 97.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0	rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 595 Tolerance 1/min : + 30 Rated speed rpm : 100
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 97.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed	rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 595 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.00
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 97.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance	rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 595 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1000
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 97.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed	rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 595 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 10.85
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 97.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance	rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 595 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1000
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 97.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5	rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 595 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 10.85
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 97.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance	rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 595 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 10.85 Tolerance mm : + 0.05
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 97.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance	rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 595 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 10.85 Tolerance mm : + 0.05 Rated speed rpm : 500
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 97.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance	rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 595 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 10.85 Tolerance mm : + 0.05 Rated speed rpm : 500 rack travel mm : 500 rack travel mm : 11.50
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 97.0 Tolerance cm3/1000s strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 8.0	rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 595 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 10.85 Tolerance mm : + 0.05 Rated speed rpm : 500
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 97.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance	Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 595 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 10.85 Tolerance mm : + 0.05 Rated speed rpm : 500 rack travel mm : 11.50 Tolerance mm : + 0.10
governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 97.0 Tolerance cm3/1000s strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 8.0	rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 595 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 10.85 Tolerance mm : + 0.05 Rated speed rpm : 500 rack travel mm : 500 rack travel mm : 11.50

Rack travel in mm: 9.80 Rated speed rpm: 1045 Tolerance 1/min: + 5 STARTING FUEL DELIVERY Rated speed rpm: 100 rack travel mm: 20.00 Tolerance mm: + 1.00 Del. quantity cm3/1000 strokes: 142.0 Tolerance cm3/1000 strokes: + 8.0 Check tolerance		
rack travel mm : 11.10 Tolerance mm : + 0.10 FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa : - Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 96.0 Tolerance cm3/1000s: + 2.0 Check tolerance cm3/1000s: + 4.0 Aneroid pressure hPa : - Rated speed rpm : 700 Del. quantity cm3/1000 strokes : 105.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s: + 4.0 BREAKAWAY Rack travel in mm : 9.80 Rated speed rpm : 1045 Tolerance 1/min : + 5 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : + 1.00 Del. quantity cm3/1000 strokes : 142.0 Tolerance cm3/1000 strokes : + 8.0 Check tolerance	Tolerance mm	: +- 0.10
Aneroid pressure hPa : - Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 96.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.0 Aneroid pressure hPa : - Rated speed rpm : 700 Del. quantity cm3/1000 strokes : 105.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.0 BREAKAWAY Rack travel in mm : 9.80 Rated speed rpm : 1045 Tolerance 1/min : + 5 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : + 1.00 Del. quantity cm3/1000 strokes : 142.0 Tolerance cm3/1000 strokes : + 8.0 Check tolerance Check tolerance	rack travel mm	: 11.10
Aneroid pressure hPa : - Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 96.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.0 Aneroid pressure hPa : - Rated speed rpm : 700 Del. quantity cm3/1000 strokes : 105.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.0 BREAKAWAY Rack travel in mm : 9.80 Rated speed rpm : 1045 Tolerance 1/min : + 5 STAR*ING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : + 1.00 Del. quantity cm3/1000 strokes : 142.0 Tolerance cm3/1000 strokes : + 8.0 Check tolerance Check tolerance	CIEL DEL TUEDY CUA	DACTEDICTION
hPa Rated speed rpm: 500 Del. quantity cm3/1000 strokes: 96.0 Tolerance cm3/1000 strokes: + 2.0 Check tolerance cm3/1000s. + 4.0 Aneroid pressure hPa: - Rated speed rpm: 700 Del. quantity cm3/1000 strokes: + 2.0 Check tolerance cm3/1000 strokes: + 2.0 Check tolerance cm3/1000s. + 4.0 BREAKAWAY Rack travel in mm: 9.80 Rated speed rpm: 1045 Tolerance 1/min: + 5 STARTING FUEL DELIVERY Rated speed rpm: 100 rack travel mm: 20.00 Tolerance mm: + 1.00 Del. quantity cm3/1000 strokes: 142.0 Tolerance cm3/1000 strokes: + 8.0 Check tolerance		ARCIERIS (105
Aneroid pressure hPa : - Rated speed rpm : 700 Del. quantity cm3/1000 strokes : 105.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.0 BREAKAWAY Rack travel in mm : 9.80 Rated speed rpm : 1045 Tolerance 1/min : + 5 STARTING FUEL DELIVERY Rated speed rpm : 20.00 Tolerance mm : + 1.00 Del. quantity cm3/1000 strokes : 142.0 Tolerance cm3/1000 strokes : + 8.0 Check tolerance	hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 500 : 96.0
hPa Rated speed rpm: 700 Del. quantity cm3/1000 strokes: 105.0 Tolerance cm3/1000 strokes: + 2.0 Check tolerance cm3/1000s. : + 4.0 BREAKAWAY Rack travel in mm: 9.80 Rated speed rpm: 1045 Tolerance 1/min: + 5 STARTING FUEL DELIVERY Rated speed rpm: 20.00 Tolerance mm: 20.00 Tolerance mm: + 1.00 Del. quantity cm3/1000 strokes: 142.0 Tolerance cm3/1000 strokes: + 8.0 Check tolerance		: +- 4.0
Rack travel in mm: 9.80 Rated speed rpm: 1045 Tolerance 1/min: + 5 STARTING FUEL DELIVERY Rated speed rpm: 100 rack travel mm: 20.00 Tolerance mm: + 1.00 Del. quantity cm3/1000 strokes: 142.0 Tolerance cm3/1000 strokes: + 8.0 Check tolerance	hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 105.0 : +- 2.0
Rated speed rpm : 1045 Tolerance 1/min : + 5 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : + 1.00 Del. quantity cm3/1000 strokes : 142.0 Tolerance cm3/1000 strokes : + 8.0 Check tolerance	BREAKAWAY	
Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : + 1.00 Del. quantity cm3/1000 strokes : 142.0 Tolerance cm3/1000 strokes : + 8.0 Check tolerance	Rated speed rpm	: 1045
rack travel mm : 20.00 Tolerance mm : + 1.00 Del. quantity cm3/1000 strokes : 142.0 Tolerance cm3/1000 strokes : + 8.0 Check tolerance	STARTING FUEL DELI	VERY
	rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 20.00 : +- 1.00 : 142.0 : +- 8.0

vel. quantity		
cm3/1000 strokes	:	16.0
Tolerance		
cm3/1000 strokes	: +	2.0
Check tolerance		
cm3/1000s.	: +	4.5
Spreed		
Tolerance		
cm3/1000 strokes	:	5.5
Check tolerance		
cm3/1000s.	:	9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 30.03.96 Test oil : ISO 4113

Combination No. : 9 400 083 449AI

Injection pump

Pump designation : PES6A1000320/3RS2691

EP type number : 9 410 230 025

Governor

Governer design. : RSV400...1100A2C2209

R

Governer no. : 9 420 083 201

Cust. part No. : 3352894-VERSA008

Customer-spec. information
Customer : CUMMINS
Motor : 6 CT 8.3
Power KW : 139.8

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : + 1.50
Difference ° CS : 3.50

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 11.35
Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 106.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance cm3/1000s. : +- 3.0

	+
Spreed	+ control lever
Tolerance	+ position degree : 94.0
cm3/1000 strokes : 3.5	+ tolerance degree : + 4.0
	+
Check tolerance	+ RATED SPEED
cm3/1000s. : 8.0	+
	rack travel mm : 10.30
Del. quantity	+ Rated speed rpm : 1295
cm3/1000 strokes : 16.0	+ Tolerance 1/min : + 5
Tolerance	† *** *** *** *** *** *** *** *** *** *
cm3/1000 strokes : +- 2.0	rack travel mm : 4.00
Check tolerance cm3/1000s. : ← 4.5	+ Rated speed rpm : 1340 + Tolerance 1/min : +- 15
Spreed 4.5	T rocerance train : + 15
Tolerance	Track travel mm : 0.85
cm3/1000 strokes : 5.5	+ Tolerance mm : + 0.55
Check tolerance	Rated speed rpm : 1500
cm3/1000s. : 9.0	- Canada abana a but a canada
	+
	+
(B) SETTING OF INJECTION PUMP	† LOW IDLE
WITH GOVERNOR	+
	†
	+ control lever
CHINE SLEEVE DOSTITON	position degree : 66.0 tolerance degree : + 4.0
GUIDE SLEEVE POSITION	tolerance degree : + 4.0
Rated speed rpm : 800	Setting point w/out bumper spring
• • • • • • • • • • • • • • • • • • • •	+
Rack travel in mm : 0.50	Rated speed rpm : 400
Tolerance mm : +- 0.20	rack travel mm : 5.10
	†
governor spring	+ Testing:
pre-tension	Total aread area (00)
click setting x : 2.50	+ Rated speed rpm : 400 + rack travel mm : 5.60
	+ Tolerance mm : +- 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	T locerative time : T 0.10
THE LOND DELIVERY AT FULL FORD STOP	Frack travel mm : 2.00
Rated speed rpm : 1250	+ Rated speed rpm : 570
Aneroid pressure	+ Tolerance 1/min : + 30
hPa : -	+
Del. quantity	Rated speed rpm : 100
cm3/1000 strokes : 106.0	+
Tolerance	+ CRT mm min. :> 19.00
cm3/1000 strokes : + 1.0	+
Check tolerance	
cm3/1000s. : + 3.0	+ TORQUE CONTROL
Spreed	T Poted speed 4200
Tolerance	+ Rated speed rpm : 1250
cm3/1000 strokes : 3.5	+ rack travel mm : 11.35 + Tolerance mm : + 0.05
Check tolerance cm3/1000s. : 8.0	T roterance min : The D.U.
· 0.0	Rated speed rpm : 500
	rack travel mm : 11.40
	+ Tolerance mm : + 0.10
CONTROL LEVER	+
	- Rated speed rpm : 400
	+ rack travel mm : 11.95

Tolerance mm : + 0.25

BREAKAWAY

Rack travel in mm: 10.30
Rated speed rpm: 1295
Tolerance 1/min: +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 20.00
Tolerance mm : +- 1.00
Del. quantity
cm3/1000 strokes : 142.0
Tolerance
cm3/1000 strokes : +- 8.0
Check tolerance
cm3/1000s. : +- 11.0

LOW IDLE

Del. quantity
cm3/1000 strokes : 16.0
Tolerance
cm3/1000 strokes : + 2.0
Check tolerance
cm3/1000s. : + 4.5
Spreed
Tolerance
cm3/1000 strokes : 5.5
Check tolerance
cm3/1000s. : 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 30.03.96 Test oil : ISO 4113

Combination No. : 9 400 083 449BB

Injection pump

Pump designation : PES6A100D320/3RS2691

EP type number : 9 410 230 025

Governor

Governer design. : RSV400...1100A2C2209

: R

Governer no. : 9 420 083 201

Cust. part No. : 3352898-VERSA011

Customer-spec. information Customer : CUMMINS Motor : 6 CT 8.3 L Power KW : 179.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1 417 413 047

Inlet press, bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

A16

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : + 1.50
Difference ° CS : 3.50

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 12.05 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 117.5

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 3.0

.	
Spreed	control lever
Tolerance +	position degree : 90.0
cm3/1000 strokes : 3.5	tolerance degree : +- 4.0
	totorante degree i
Check tolerance	RATED SPEED
cm3/1000s. : 6.0	RATED SPEED
	rack travel mm : 11.00
Dol gumphitus	
Del. quantity + cm3/1000 strokes : 16.0 +	Rated speed rpm : 1145 Tolerance 1/min : +- 5
	Toterance thmin : +- 3
Tolerance + cm3/1000 strokes : +- 2.0 +	mode descriptions (00
	rack travel mm : 4.00
Check tolerance	Rated speed rpm : 1195
cm3/1000s. : +- 4.5	Tolerance 1/min : + 15
Spreed	4.00
Tolerance	rack travel mm : 1.00
cm3/1000 strokes : 3.5	Tolerance mm : +- 0.70
Check tolerance +	Rated speed rpm : 1350
cm3/1000s. : 5.5	
+	
+	
(B) SETTING OF INJECTION PUMP +	LOW IDLE
WITH GOVERNOR +	
+	
+	control lever
	position degree : 66.0
GUIDE SLEEVE POSITION +	tolerance degree : + 4.0
+	
Rated speed rpm : 800	Setting point w/out bumper spring
+	
Rack travel in mm: 0.50	Rated speed rpm : 400
Tolerance mm : + 0.20	rack travel mm : 5.10
1	
governor spring +	Testing:
pre-tension +	
click setting x : 2.50	Rated speed rpm : 400
	rack travel mm : 5.60
	Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	, , , , , , , , , , , , , , , , , , , ,
	rack travel mm : 2.00
Rated speed rpm : 1100	Rated speed rpm : 595
Aneroid pressure	Tolerance 1/min : +- 30
hPa : -	roter arise training to the
Del. quantity	Rated speed rpm : 100
cm3/1000 strokes : 117.5	rates special pin to 100
Tolerance +	CRT mm min. :> 19.00
cm3/1000 strokes : +- 1.0 +	01(1 light lif (1))
Check tolerance	
cm3/1000s. : + 3.0	TORQUE CONTROL
Spreed	COLUMN COLLINGE
Tolerance +	Rated speed rpm : 1100
cm3/1000 strokes : 3.5	rack travel mm : 12.05
Check tolerance	Tolerance mm : +- 0,05
1	TO LET GIALE HALL
cm3/1000s. : 6.0	Rated speed rpm : 500
Ť	
†	
CONTROL LEVED	Tolerance া : 十 0.10
CONTROL LEVER +	
ook not be the control of the contro	Dated aread area a 700
Towns Education	Rated speed rpm : 700 rack travel mm : 12.60

Tolerance mm	: +- 0.10
Rated speed rpm rack travel mm Tolerance mm	: 800 : 12.30 : + 0.10
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 500 : 113.5 : + 1.5 : + 4.0 : 700 : 126.0 : + 1.5
cm3/1000S.	: +- 4.0
Rack travel in mm Rated speed rpm Tolerance 1/min	: 1145
STARTING FUEL DEL	IVERY
Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 100 : 20.00 : ← 1.00 : 142.0 : ← 7.0 : ← 10.0

Del. quantity		
cm3/1000 strokes	:	16.0
Tolerance		
cm3/1000 strokes	: +-	2.0
Check tolerance		
cm3/1000s.	: +	4.5
Spreed		
Tolerance		
cm3/1000 strokes	:	3.5
Check tolerance		
cm3/1000s.	:	5.5

LOW IDLE

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 30,03,96 : ISO 4113 Test oil

: 9 400 083 449BC Combination No.

Injection pump

Pump designation : PES6A100D320/3RS2691

EP type number : 9 410 230 025

Governor

Governer design. : RSV400...1100A2C2209

: 9 420 083 201 Governer no.

Cust. part No. : 3353232-VERSA012

Customer spec. information : CUMMINS Customer : 6 CT 8.3 Motor : 154.6 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C Tolerance °C : +- 2.0

: 1 419 992 198 Overflow valve

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 bar Tolerance bar : +- 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar: 26.0 Tolerance bar : +- 1.0

Prestroke mm : 2.85 Tolerance mm : + 0.05Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300

Beginning of delivery differende

and maximum rack

travel 10.50 Tolerance mm : + 1.50 vifference ° CS : 3.50

BASIC SETTING

Rated speed rpm 1100

Rack travel in mm: 12.25 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 118.0

Tolerance

cm3/1000 strokes : +-1.0

Check tolerance

cm3/1000s. : +-3.0

	+
Spreed Tolerance cm3/1000 strokes : 3.5	control lever position degree : 90.0 tolerance degree : + 4.0
Check tolerance cm3/1000s. : 8.0	RATED SPEED
Del. quantity cm3/1000 strokes : 12.5 Tolerance	rack travel mm : 11.20 Rated speed rpm : 1145 Tolerance 1/min : + 5
cm3/1000 strokes : + 2.0 Check tolerance	rack travel mm : 4.00 Rated speed rpm : 1200
cm3/1000s. : +- 4.5 Spreed	Tolerance 1/min : + 15
Tolerance cm3/1000 strokes : 5.5	rack travel mm : 0.85 Tolerance mm : + 0.55
Check tolerance cm3/1000s. 9.0	Rated speed rpm : 1350
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	+ LOW IDLE
	t + control lever + position degree : 67.0
GUIDE SLEEVE POSITION	+ position degree : 67.0 + tolerance degree : +- 4.0
Rated speed rpm : 800	Setting point w/out bumper spring
Rack travel in mm : 0.50 Tolerance mm : + 0.20	Rated speed rpm : 450 rack travel mm : 4.60
governor spring pre-tension	Testing:
click setting x : 2.50	Rated speed rpm : 450 rack travel mm : 5.10
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : + 0.10
Rated speed rpm : 1100	rack travel mm : 2.00 Rated speed rpm : 600
Rated speed rpm : 1100 Aneroid pressure hPa : -	Rated speed rpm : 600 Tolerance 1/min : + 30
Del. quantity cm3/1000 strokes : 118.0	Rated speed rpm : 100
Tolerance cm3/1000 strokes : + 1.0	CRT mm min. : > 19.00
Check tolerance cm3/1000s. : + 3.0	TORQUE CONTROL
Spreed Tolerance	Rated speed rom : 1100
cm3/1000 strokes : 3.5 Check tolerance	rack travel mm : 12.25 Tolerance mm : + 0.05
cm3/1000s. : 8.0	Rated speed rpm : 500
CONTROL LEVED	rack travel mm : 12.30 Tolerance mm : + 0.10
CONTROL. LEVER	Rated speed rpm : 400 rack travel mm : 12.85

Tolerance mm : +- 0.25 BREAKAWAY Rack travel in mm : 11.20 Rated speed rpm : 1145 Tolerance 1/min : + 5 STARTING FUEL DELIVERY Rated speed rpm 100 20.00 rack travel mm : +- 1.00 Tolerance mm Del. quantity cm3/1000 strokes : 142.0 Tolerance cm3/1000 strokes : +- 8.0 Check tolerance cm3/1000S. : +- 11.0 LOW IDLE Del. quantity cm3/1000 strokes : 12.5 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance 5.5 cm3/1000 strokes : Check tolerance cm3/1000s. 9.0 End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 30.03.96 Edition Test oil : ISO 4113

Combination No. : 9 400 083 449BD

Injection pump

Pump designation : PES6A1000320/3RS2691

EP type number : 9 410 230 025

Governor

Governer design. : RSV400...1100A2C2209

: 9 420 083 201 Governer no.

Cust. part No. : 3354419-VERSA013

Customer-spec. information Customer : CUMMINS Motor : 6 CT 8.3 L Power KW : 155.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 Tolerance °C 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 bar Tolerance bar : +- 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0 x inside diameter: 2.0 600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

2.85 Prestroke mm : +- 0.05 Tolerance mm

Check

: +- 0.10 tolerance mm

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Beginning of delivery differende

and maximum rack

travel 10.50 Tolerance mm : +- 1.50 3.50 Difference ° CS :

BASIC SETTING

: 1100 Rated speed rpm

Rack travel in mm: 11.35 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 107.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

cm3/1000s. : +-3.0

	+
Spreed	+ control lever
Tolerance	position degree : 89.0
cm3/1000 strokes : 3.5	+ tolerance degree : +- 4.0
	+
Check tolerance	+ RATED SPEED
cm3/1000s. : 8.0	+
	+ rack travel mm : 10.30
Del. quantity	+ Rated speed rpm : 1145
cm3/1000 strokes : 16.0	+ Tolerance 1/min : +- 5
Tolerance	+
cm3/1000 strokes : +- 2.0	+ rack travel mm : 4.00
Check tolerance	+ Rated speed rpm : 1190
cm3/1000s. : +- 4.5	+ Tolerance 1/min : + 15
Spreed	1 0 05
Tolerance 5.5	+ rack travel mm : 0.85
cm3/1000 strokes : 5.5	+ Tolerance mm : +- 0.55
Check tolerance cm3/1000s. : 9.0	Rated speed rpm : 1350
cm3/1000S. : 9.0	Ť
	T
(B) SETTING OF INJECTION PUMP	LOW IDLE
WITH GOVERNOR	I com lock
MITTI GOVERNOR	1
	+ control lever
	position degree : 66.0
GUIDE SLEEVE POSITION	+ tolerance degree : + 4.0
	+
Rated speed rpm : 800	+ Setting point w/out bumper spring
	+
Rack travel in mm : 0.50	+ Rated speed rpm : 400
Tolerance mm : + 0.20	rack travel mm : 5.10
	+
governor spring	† Testing:
pre-tension 2.50	
click setting x : 2.50	+ Rated speed rpm : 400
	+ rack travel mm : 5.60
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : + 0.10
FUEL EGAD DELIVERY AT FULL LUAD STOP	rack travel mm : 2.00
Rated speed rpm : 1100	Rated speed rpm : 595
Aneroid pressure	Tolerance 1/min : + 30
hPa : -	- Total dilate in militire in the second
Del. quantity	Rated speed rpm : 100
cm3/1000 strokes : 107.0	- Control of the Cont
Tolerance	+ CRT mm min. : > 19.00
cm3/1000 strokes : + 1.0	+
Check tolerance	
cm3/1000s. : + 3.0	+ TORQUE CONTROL
Spreed	+
Tolerance	+ Rated speed rpm : 1100
cm3/1000 strokes : 3.5	rack travel mm : 11.35
Check tolerance	+ Tolerance mm : +- 0.05
cm3/1000s. : 8.0	+
	+ Rated speed rpm : 700
	+ rack travel mm : 12.90
	+ Tolerance mm : + 0.10
CONTROL LEVER	
	Rated speed rpm : 900
	+ rack travel mm : 12.20

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa 700 Rated speed rpm Del. quantity

cm3/1000 strokes :

130.0

Tolerance

cm3/1000 strokes : +-2.0

Check tolerance

cm3/1000s. 4.0

BREAKAWAY

Rack travel in mm: 10.30 Rated speed rpm : 1145 Tolerance 1/min : +-

STARTING FUEL DELIVERY

Rated speed rpm 100 20.00 rack travel mm : : + 1.00 Tolerance mm

Del. quantity

cm3/1000 strokes : 142.0

Tolerance

cm3/1000 strokes : + 8.0

Check tolerance

cm3/1000s. : + 11.0

LOW IDLE

Del. quantity

cm3/1000 strokes : 16.0

Tolerance

cm3/1000 strokes : +-2.0

Check tolerance

cm3/1000s. 4.5

Spreed

Tolerance

5.5 cm3/1000 strokes :

Check tolerance

9.0 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 30.03.96 : ISO 4113 Test oil

: 9 400 083 449CA Combination No.

Injection pump

Pump designation : PES6A100D320/3RS2691

EP type number : 9 410 230 025

Governor

Governer design. : RSV400...1100A2C2209

: 9 420 083 201 Governer no.

Cust. part No. : 3915294-VERSA020

Customer-spec. information : CUMMINS Customer Motor : 6 CTA 8.3 L Power KW : 164.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 bar : +- 1.5 Tolerance bar

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm 2.85 : + 0.05 Tolerance mm

Check

: + 0.10tolerance mm

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Beginning of delivery differende

and maximum rack

travel 10.50 Tolerance mm : +- 1.50 Difference * CS : 3.50

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 11.55 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 111.0

Tolerance cm3/1000 strokes : +-1.0

Check tolerance cm3/1000s. : +-3.0

	+
Spreed	+ control lever
Tolerance	position degree : 89.0
cm3/1000 strokes : 3.5	tolerance degree : +- 4.0
	1 total de degree 4.0
Check tolerance	+ RATED SPEED
cm3/1000s. : 8.0	1,1100 01 000
	rack travel mm : 10.50
Del. quantity	+ Rated speed rpm : 1145
cm3/1000 strokes : 16.0	+ Tolerance 1/min : +- 5
Tolerance	Total and Trimin
cm3/1000 strokes : +- 2.0	rack travel mm : 4.00
Check tolerance	Rated speed rpm : 1195
cm3/1000s. : +- 4.5	+ Tolerance 1/min : + 15
Spreed	Total de l'allin l'all
Tolerance	+ rack travel mm : 0.85
cm3/1000 strokes : 5.5	+ Tolerance mm : + 0.55
Check tolerance	Rated speed rpm : 1350
cm3/1000s. : 9.0	- 1030
THE THE PERSON OF THE PERSON O	4
(B) SETTING OF INJECTION PUMP	+ LOW IDLE
WITH GOVERNOR	+
	+
	+ control lever
	+ position degree : 66.0
GUIDE SLEEVE POSITION	tolerance degree : + 4.0
D. best entered many 2000	
Rated speed rpm : 800	Setting point w/out bumper spring
Rack travel in mm : 0.65	Rated speed rpm : 400
Tolerance mm : + 0.35	rack travel mm : 5.10
	T rack cravec tight . 5.10
governor spring	Testing:
pre-tension	
click setting x : 2.50	Rated speed rpm : 400
	rack travel mm : 5.60
	Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	-
•	rack travel mm : 2.00
Rated speed rpm : 1100	Rated speed rpm : 595
Aneroid pressure	Tolerance 1/min : + 30
hPa : -	+
Del. quantity	Rated speed rpm : 100
cm3/1000 strokes : 111.0	+
Tolerance	CRT mm min. :> 19.00
cm3/1000 strokes : + 1.0	†
Check tolerance	
cm3/1000s. : + 3.0	TORQUE CONTROL
Spreed	†
Tolerance	Rated speed rpm : 1100
cm3/1000 strokes : 3.5	rack travel mm : 11.55
Check tolerance	Tolerance mm : +- 0.05
cm3/1000s. : 8.0	Dated around man - 500
•	Rated speed rpm : 500
•	+ rack travel mm : 12.20 + Tolerance mm : + 0.10
CONTROL LEVER	TOCETATIVE HAIT . TO U. IU
CONTROL LEVER	Rated speed rpm : 750
	rack travel mm : 12.20
•	I rack craver and . IC.CO

Tolerance mm Rated speed rpm rack travel mm Tolerance mm	: +- 0.10 : 950 : 11.90 : +- 0.10
FUEL DELIVERY CHA Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	: ~ : 500
cm3/1000 strokes Check tolerance cm3/1000s.	: +- 2.0 : +- 4.0
hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	
BREAKAWAY Rack travel in mm Rated speed rpm Tolerance 1/min	: 10.50 : 1145 : + 5
STARTING FUEL DEL Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 100 : 20.00 : + 1.00 : 142.0
LOW IDLE	

Del. quantity		
cm3/1000 strokes	:	16.0
Tolerance		
cm3/1000 strokes	: +-	2.0
Check tolerance		
cm3/1000s.	: +-	4.5
Spreed		
Tolerance		
cm3/1000 strokes	:	5.5
Check tolerance		
cm3/1000s.	:	9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 30.03.96 Edition : ISO 4113 Test oil

Combination No. : 9 400 G83 449CI

Injection pump

Pump designation : PES6A1000320/3RS2691

EP type number : 9 410 230 025

Governor

Governer design. : RSV400...1100A2C2209

: 9 420 083 201 Governer no.

Cust. part No. : 3354421-VERSA028

Customer-spec. information Customer : CUMMINS Motor : 6 CT 8.3 Power KW : 154.6

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 Tolerance °C 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 bar : +- 1.5 Tolerance bar

: 1 680 750 014 Test Lines

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : +- 1.0

Prestroke mm 2.85 : +- 0.05 Tolerance mm Check tolerance mm : + - 0.10

Rack travel in mm: 10.50 Tolerance mm: +- 1.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

Beginning of delivery differende

and maximum rack

travel 10.50 Tolerance mm : + 1.50 Difference ° CS : 3.50

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 11.95 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes :

Tolerance

116.0

cm3/1000 strokes : \leftarrow 1.0

Check tolerance cm3/1000s. : +- 3.0

+	
Spreed	control lever
Tolerance	position degree : 89.0
cm3/1000 strokes : 3.5	tolerance degree : +- 4.0
+	
Check tolerance	RATED SPEED
cm3/1000s. : 8.0	
+	rack travel mm : 10.90
Del. quantity +	Rated speed rpm : 1145
cm3/1000 strokes : 16.0	Tolerance 1/min : +- 5
Tolerance	
cm3/1000 strokes : + 2.0	rack travel mm : 4.00
Check tolerance	Rated speed rpm : 1195
cm3/1000s. : + 4.5	Tolerance 1/min : + 15
Spreed	
Tolerance	rack travel mm : 0.85
cm3/1000 strokes : 5.5	Tolerance mm : +- 0.55
Check tolerance	Rated speed rpm : 1350
cm3/1000s. : 9.0 +	
†	
(5) 00000000 00 000000000000000000000000	1 At 4 Th P
(B) SETTING OF INJECTION PUMP	LOW IDLE
WITH GOVERNOR	
†	anning laws
T	control lever
CHILDE OF EETE DOCTION	position degree : 66.0 tolerance degree : +- 4.0
GUIDE SLEEVE POSITION	tolerance degree : +- 4.0
Rated speed rpm : 800	Cotting point Wort human apping
Rated speed rpm : 800	Setting point w/out bumper spring
Rack travel in mm: 0.50	Rated speed rpm : 400
Tolerance mm : +- 0.20	rack travel mm : 5.10
Total alice likil	rack cravec lian . 5.10
governor spring	Testing:
pre-tension +	resettig.
click setting x : 2.50	Rated speed rpm : 400
tion secting n	rack travel mm : 5.60
	Tolerance mm : +- 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	
+	rack travel mm : 2.00
Rated speed rpm : 1100	Rated speed rpm : 570
Aneroid pressure	Tolerance 1/min : +- 30
hPa : -	
Del. quantity	Rated speed rpm : 100
cm3/1000 strokes : 116.0 +	
Tolerance	CRT mm min. : > 19.00
cm3/1000 strokes : + 1.0 +	
Check tolerance	
cm3/1000s. : +- 3.0 +	TORQUE CONTROL
Spreed	
Tolerance	Rated speed rpm : 1100
cm3/1000 strokes : 3.5	rack travel mm : 11.95
Check tolerance	Tolerance mm : \div 0.05
cm3/1000s. : 8.0 +	
+	Rated speed rpm : 500
+	rack travel mm : 12.00
	Tolerance mm : + 0.10
CONTROL LEVER +	Dated according to 100
†	Rated speed rpm : 400
+	rack travel mm : 12.55

Tolerance mm : + 0.25

BREAKAWAY

Rack travel in mm : 10.90
Rated speed rpm : 1145
Tolerance 1/min : +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : 4 1.00 Del. quantity cm3/1000 strokes : 142.0 Tolerance cm3/1000 strokes : + 8.0 Check tolerance cm3/1000s. : + 11.0

LOW IDLE

Del. quantity cm3/1000 strokes : 16.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. : +-4.5 Spreed Tolerance 5.5 cm3/1000 strokes : Check tolerance 9.0 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 30.03.96 Test oil : ISO 4113

Combination No. : 9 400 083 449CJ

Injection pump

Pump designation : PES6A100b320/3RS2691

EP type number : 9 410 230 025

Governor

Governer design. : RSV400...1100A2C2209

: R

Governer no. : 9 420 083 201

Cust. part No. : 3354437-VERSA029

Customer—spec. information
Customer : CUMMINS
Motor : 6 CT 8.3 L
Power KW : 132.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1.680 750 014

Outside diameter : 6.8

B03

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : + 1.50
Difference * CS : 3.50

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 10.55 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 94.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 3.0

4	•
Spreed	- control lever
Tolerance	- position degree : 94.0
cm3/1000 strokes : 3.5	- tolerance degree : +- 4.0
<u> </u>	•
Check tolerance	- RATED SPEED
cm3/1000s. : 8.0	
+	- rack travel mm : 9.50
Del. quantity	Rated speed rpm : 1295
cm3/1000 strokes : 16.0	Tolerance 1/min : +- 5
Tolerance	•
cm3/1000 strokes : +- 2.0	rack travel mm : 4.00
Check tolerance	Rated speed rpm : 1335
cm3/1000s, : +- 4.5	Tolerance 1/min : +- 15
Spreed	•
Tolerance	rack travel mm : 0.85
cm3/1000 strokes : 5.5	Tolerance mm : +- 0.55
Check tolerance	Rated speed rpm : 1500
cm3/1000s, : 9.0	,
1	
(B) SETTING OF INJECTION PUMP	LOW IDLE
WITH GOVERNOR +	
+	•
+	control lever
	position degree : 66.0
GUIDE SLEEVE POSITION +	tolerance degree : +- 4.0
+	
Rated speed rpm : 800 +	Setting point w/out bumper spring
†	
Rack travel in mm: 0.50	Rated speed rpm : 400
Tolerance mm : + 0.20	rack travel mm : 5.10
	T
governor spring	Testing:
pre-tension 7.50	Datad aread and 100
click setting x : 2.50 \dagger	Rated speed rpm : 400
†	rack travel mm : 5.60
FULL LOAD DELTUEDY AT FULL LOAD STOD	Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 2.00
Dated around non a 1250	
Rated speed rpm : 1250	
Aneroid pressure	Tolerance 1/min : +- 30
	Rated speed rpm : 100
Del. quantity + cm3/1000 strokes : 94.0 +	Rated speed rpm : 100
cm3/1000 strokes : 94.0 + Tolerance +	CRT mm min. : > 19.00
cm3/1000 strokes : + 1.0	CEL 100 1111: 17:00
Check tolerance	
cm3/1000s. : +- 3.0 +-	TORQUE CONTROL
Spreed + 3.0	TOUGHT CONTINUE
Tolerance +	Rated speed rpm : 1250
TOTEL BILLE	
	rack traval mm · 10 55
cm3/1000 strokes : 3.5	rack travel mm : 10.55
cm3/1000 strokes : 3.5 Check tolerance	rack travel mm : 10.55 Tolerance mm : +- 0.05
cm3/1000 strokes : 3.5	Tolerance mm : +- 0.05
cm3/1000 strokes : 3.5 Check tolerance	Tolerance mm : +- 0.05 Rated speed rpm : 500
cm3/1000 strokes : 3.5 Check tolerance	Tolerance mm : +- 0.05 Rated speed rpm : 500 rack travel mm : 10.60
cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 8.0	Tolerance mm : +- 0.05 Rated speed rpm : 500
cm3/1000 strokes : 3.5 Check tolerance	Tolerance mm : + 0.05 Rated speed rpm : 500 rack travel mm : 10.60 Tolerance mm : + 0.10
cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 8.0	Tolerance mm : +- 0.05 Rated speed rpm : 500 rack travel mm : 10.60

Tolerance mm : +- 0.25

BREAKAWAY

Rack travel in mm: 9.50
Rated speed rpm: 1295
Tolerance 1/min: +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 20.00
Tolerance mm : +- 1.00
Del. quantity
cm3/1000 strokes : 142.0
Tolerance
cm3/1000 strokes : +- 8.0
Check tolerance

: + 11.0

LOW IDLE

cm3/1000s.

Del. quantity
cm3/1000 strokes : 16.0
Tolerance
cm3/1000 strokes : + 2.0
Check tolerance
cm3/1000s. : + 4.5
Spreed
Tolerance
cm3/1000 strokes : 5.5
Check tolerance
cm3/1000s. : 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 30.03.96 Edition : ISO 4113 Test oil

Combination No. : 9 400 083 449DA

Injection pump

Pump designation : PES6A100D320/3RS2691

EP type number : 9 410 230 025

Governor

Governer design. : RSV400...1100A2C2209

: 9 420 083 201 Governer no.

Cust. part No. : 3354634-VERSA030

Customer-spec. information Customer : CUMMINS : 6 CT 8.3 Motor

: 160.3 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 bar Tolerance bar

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : +- 0.05 Tolerance mm Check tolerance mm : +- 0.10

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

: 0-60-120-180-240 Phasing

: -300

Beginning of delivery differende

and maximum rack

travel 10.50 : + 1.50 Tolerance mm Difference ° CS 3.50

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm: 11.95 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 116.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 3.0

B06

	1
Spreed	control lever
Tolerance cm3/1000 strokes : 3.5	+ position degree : 94.0 + tolerance degree : + 4.0
Check tolerance cm3/1000s. : 8.0	RATED SPEED
1,000	rack travel mm : 10.90
Del. quantity cm3/1000 strokes : 16.0 Tolerance	Rated speed rpm : 1295 Tolerance 1/min : + 5
cm3/1000 strokes : +- 2.0	rack travel mm : 4.00
Check tolerance cm3/1000S. : +- 4.5 Spreed	Rated speed rpm : 1345 Tolerance 1/min : + 15
Tolerance	T rack travel mm : 0.85
cm3/1000 strokes : 5.5 Check tolerance	Tolerance mm : + 0.55 Rated speed rpm : 1500
cm3/1000s. : 9.0	
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	LOW IDLE
	control lever
	position degree : 66.0
GUIDE SLEEVE POSITION	tolerance degree : + 4.0
Rated speed rpm : 800	Setting point w/out bumper spring
Rack travel in mm: 0.50	Rated speed rpm : 400
Tolerance mm : + 0.20	rack travel mm : 5.10
governor spring pre-tension	Testing:
click setting x : 2.50	+ Rated speed rpm : 400
	rack travel mm : 5.60 Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	† Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	Track travel mm : 2.00
Rated speed rpm : 1250	Rated speed rpm : 570
Aneroid pressure	Tolerance 1/min : + 30
hPa : - Del. quantity	+ Rated speed rpm : 100
cm3/1000 strokes : 116.0	+
Tolerance	CRT mm min. : > 19.00
cm3/1000 strokes : +- 1.0 Check tolerance	İ
cm3/1000s. : + 3.0	TORQUE CONTROL
Spreed	+
Tolerance	Rated speed rpm : 1250
cm3/1000 strokes : 3.5 Check tolerance	+ rack travel mm : 11.95 + Tolerance mm : +- 0.05
cm3/1000s. : 8.0	Toterance likin : TO U.U.
	Rated speed rpm : 500
	+ rack travel mm : 12.00
	Tolerance mm : + 0.10
CONTROL LEVER	+ Rated speed rpm : 400
	+ rack travel mm : 12.55
	I man armina must a subject

Tolerance mm : +- 0.25 **BREAKAWAY** Rack travel in mm: 10.90 Rated speed rpm : 1295 Tolerance 1/min : +-STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.00 : + 1.00 Tolerance mm Del. quantity cm3/1000 strokes : 142.0 Tolerance cm3/1000 strokes : + 8.0 Check tolerance cm3/1000s. : +- 11.0 LOW IDLE Del. quantity cm3/1000 strokes : 16.0 Tolerance cm3/1000 strokes : +- 2.0 Check tolerance cm3/1000s. : +- 4.5 Spreed Tolerance 5.5 cm3/1000 strokes : Check tolerance cm3/1000s. 9.0 End of test specification sheet

BOSCH INJ. PUMP TEST SPECIFICATIONS Note remarks Refer to Service Info for test and adjustment instructions. See microcard(s) W400/... : 30.03.96 Edition Test oil : ISO 4113 Combination No. : 9 400 083 4490B Injection pump Pump designation : PES6A100D320/3RS2691 EP type number : 9 410 230 025 Governor Governer design. : RSV400...1100A2C2209 : 9 420 083 201 Governer no. Cust. part No. : 3354685-VERSA031 Customer-spec. information Customer : CUMMINS Motor : 6 CT 8.3 L : 129.0 Power KW TEST BENCH REQUIREMENTS Inlet line : 3.2 Test oil inlet temp. °C Tolerance °C Overflow valve : 1 417 413 047 Inlet press. bar : 1.5 Test nozzle holde : 0 681 343 009 assembly Opening pressure : 173.5 bar Tolerance bar

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 0.5 x length mm : 600 REMARKS (A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values _____ BEGINNING OF DELIVERY Test pressure bar : 26.0 Tolerance bar : + 1.0 Prestroke mm 2.85 : + 0.05 Tolerance mm Check tolerance mm : **←** 0.10 Rack travel in mm : 10.50 Tolerance mm : +- 1.50 Firing order : 1-5-3-6-2-: 0-60-120-180-240 Phasing : -300 Beginning of delivery differende and maximum rack 10.50 travel : **←** 1.50 Tolerance mm Difference * CS : 3,50 BASIC SETTING Rated speed rpm : 1100 Rack travel in mm: 10.25 Tolerance mm : +- 0.05 Del. quantity cm3/1000 strokes : 88.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : +- 3.0

B09

1	
Spreed Tolerance cm3/1000 strokes : 3.5	<pre>control lever position degree : 89.0 tolerance degree : +- 4.0</pre>
Check tolerance cm3/1000s. : 8.0	RATED SPEED
Del. quantity cm3/1000 strokes : 16.0 Tolerance	rack travel mm : 9.20 Rated speed rpm : 1145 Tolerance 1/min : +- 5
cm3/1000 strokes : + 2.0 Check tolerance	rack travel mm : 4.00 Rated speed rpm : 1185
cm3/1000s. : +- 4.5	Rated speed rpm : 1185 Tolerance 1/min : + 15
Tolerance cm3/1000 strokes : 5.5	rack travel mm : 0.85 Tolerance mm : + 0.55
Check tolerance cm3/1000s. : 9.0	Rated speed rpm : 1350
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	LOW IDLE
‡	control lever
GUIDE SLEEVE POSITION	position degree : 66.0 tolerance degree : +- 4.0
Rated speed rpm : 800	Setting point w/out bumper spring
Rack travel in mm: 0.50 Tolerance mm: + 0.20	Rated speed rpm : 400 rack travel mm : 5.10
+	
governor spring + pre-tension +	Testing:
click setting x : 2.50	Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : +- 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	
Rated speed rpm : 1100	rack travel mm : 2.00 Rated speed rpm : 570
Aneroid pressure hPa : -	Tolerance 1/min : +- 30
Del. quantity cm3/1000 strokes : 88.0	Rated speed rpm : 100
Tolerance	CRT mm min. : > 19.00
Check tolerance	TOROUT, CONTROL
cm3/1000s. : + 3.0 + Spreed	TORQUE CONTROL
Tolerance + cm3/1000 strokes : 3.5 +	Rated speed rpm : 1100 rack travel mm : 10.25
Check tolerance cm3/1000s. : 8.0	Tolerance mm : +- 0.05
<u> </u>	Rated speed rpm : 500 rack travel mm : 10.30
CONTROL LEVER	Tolerance mm : +- 0.10
TOTAL ELECTRIC	Rated speed rpm : 400 rack travel mm : 10.85

End of test specification sheet

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

Rated speed rpm : 500 Del. quantity

cm3/1000 strokes : 72.5

Tolerance

cm3/1000 strokes : +-2.0

Check tolerance

cm3/1000s. 4.0

BREAKAWAY

9.20 Rack travel in mm : Rated speed rpm : 1145 Tolerance 1/min : + 5

STARTING FUEL DELIVERY

100 Rated speed rpm 20.00 rack travel mm : : +- 1.00 Tolerance mm Del. quantity cm3/1000 strokes : 142.0 Tolerance cm3/1000 strokes : +- 8.0 Check tolerance

: + 11.0

LOW IDLE

cm3/1000s.

Del. quantity cm3/1000 strokes : 16.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. : +-4.5 Spreed Tolerance 5.5 cm3/1000 strokes : Check tolerance cm3/1000s. 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 30.03.96 Test oil : ISO 4113

Combination No. : 9 400 083 449DC

Injection pump

Pump designation : PES6A100D320/3RS2691

: 9 410 230 025 EP type number

Governor

Governer design. : RSV400...1100A2C2209

: 9 420 083 201 Governer no.

: 3354686-VERSA032 Cust, part No.

Customer-spec. information : CUMMINS Customer

: 6 CTA - 8.3 L Motor

Power KW : 148.4

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C Tolerance °C 2.0

: 1 417 413 047 Overflow valve

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

173.5 bar Tolerance bar 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

B12

x inside diameter : 2.0 600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +-

Prestroke mm 2.85 : +- 0.05 Tolerance mm Check tolerance mm : + 0.10

10.50 Rack travel in mm:

Tolerance mm : +- 1.50

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300

Beginning of delivery differende

and maximum rack

travel 10.50 Tolerance mm : +- 1.50 Difference * CS 3.50

BASIC SETTING

Rated speed rpm 1100

Rack travel in mm: 10.85 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 97.5

Tolerance cm3/1000 strokes : +- 1.0

Check tolerance **:** + 3.0

cm3/1000s.

4	<u> </u>
Spreed	control lever
Tolerance	position degree : 89.0
cm3/1000 strokes : 3.5	tolerance degree : +- 4.0
Check tolerance	RATED SPEED
cm3/1000s. : 8.0	0.00
No.1 minobib.	rack travel mm : 9.80
Del. quantity - cm3/1000 strokes : 16.0 -	Rated speed rpm : 1145 Tolerance 1/min : +- 5
Tolerance	Total and I milita .
cm3/1000 strokes : +- 2.0	rack travel mm : 4.00
Check tolerance	Rated speed rpm : 1190
cm3/1000s. : + 4.5	Tolerance 1/min : +- 15
Spreed -	
Tolerance	rack travel mm : 0.85
cm3/1000 strokes : 5.5	Tolerance mm : + 0.55
Check tolerance	- Rated speed rpm : 1350
cm3/1000s. : 9.0 -	
7	
(B) SETTING OF INJECTION PUMP	LOW IDLE
WITH GOVERNOR	FOM TAPE
WITH GOVENNON	
	- control lever
	position degree : 66.0
GUIDE SLEEVE POSITION -	- tolerance degree : +- 4.0
Rated speed rpm : 800	Setting point w/out bumper spring
Rack travel in mm: 0.50	- Rated speed rpm : 400
Tolerance mm : + 0.20	- Rated speed rpm : 400 - rack travel mm : 5.10
Total differ limit	L TACK CI GVEC IIRII
governor spring	Testing:
pre-tension -	
click setting x : 2.50	- Rated speed rpm : 400
-	rack travel mm : 5.60
	Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	mank Americal come and 2000
Batad anand mm . 1400	- rack travel mm : 2.00
Rated speed rpm : 1100	- Rated speed rpm : 570 - Tolerance 1/min : +- 30
Aneroid pressure	- Tolerance 1/min : +- 30
Del. quantity	- Rated speed rpm : 100
cm3/1000 strokes : 97.5	- 100 an open train • 100
Tolerance	- CRT mm min. : > 19.00
cm3/1000 strokes : + 1.0 +	•
Check tolerance	
cm3/1000s. : $+-3.0$	- TORQUE CONTROL
Spreed	
Tolerance 7	Rated speed rpm : 1100
cm3/1000 strokes : 3.5	rack travel mm : 10.85
Check tolerance tm3/1000s. : 8.0	Tolerance mm : +- 0.05
cm3/1000s. : 8.0	Rated speed rpm : 500
	rack travel mm : 10.90
	Tolerance mm : +- 0.10
CONTROL LEVER	
1	Rated speed rpm : 400
+	rack travel mm : 11.45
·	

End of test specification sheet

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa 500 Rated speed rpm

Del. quantity

cm3/1000 strokes : 83.0

Tolerance

cm3/1000 strokes : +-2.0

Check tolerance

cm3/1000s. 4.0

BREAKAWAY

Rack travel in mm : 9,80 Rated speed rpm : 1145 Tolerance 1/min : +-

STARTING FUEL DELIVERY

100 Rated speed rpm rack travel mm : 20.00 Tolerance mm : 4- 1.00 Del. quantity cm3/1000 strokes : 142.0

Tolerance

cm3/1000 strokes : +- 8.0

Check tolerance

cm3/1000s. : + 11.0

LOW IDLE

Del. quantity cm3/1090 strokes : 16.0

Tolerance

cm3/1000 strokes : +-2.0

Check tolerance

cm3/1000s. 4.5 : +--

Spreed

Tolerance

cm3/1000 strokes : 5.5

Check tolerance

cm3/1000s. 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 30.03.96 Edition Test oil : ISO 4113

Combination No. : 9 400 083 449DD

Injection pump

Pump designation : PES6A100D320/3RS2691

EP type number : 9 410 230 025

Governor

: RSV400...1100A2C2209 Governer design.

: 9 420 083 201 Governer no.

: 3354913 Cust. part No.

Customer-spec. information : CUMMINS Customer : 6 CT 8.3 L Motor : 129.1 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 bar Tolerance bar : +- 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

B15

x inside diameter: 2.0 600 x length mm 2

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : +- 1.0

Prestroke mm 2.85 : +- 0.05 Tolerance mm Check

: ← 0.10 tolerance mm

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

: 0-60-120-180-240 Phasing

: -300

Beginning of delivery differende

and maximum rack

10.50 travel Tolerance mm : +- 1.50 Difference * CS : 3.50

BASIC SETTING

Rated speed rpm : 1175

Rack travel in mm: 10.25 : +- 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 88.5

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : + 3.0

		1
Spreed		T control lever
Tolerance		+ position degrée : 91.0
cm3/1000 strokes	: 3.5	tolerance degree : + 4.0
Check tolerance		+ RATED SPEED
cm3/1000s.	: 8.0	T RATED SPEED
(1112) (0000)	. 0.5	rack travel mm : 9.20
Del. quantity		Rated speed rpm : 1220
cm3/1000 strokes	: 16.0	+ Tolerance 1/min : +- 5
Tolerance		+
cm3/1000 strokes	: +- 2.0	rack travel mm : 4.00
Check tolerance cm3/1000s.	: +- 4.5	+ Rated speed rpm : 1260 + Tolerance 1/min : +- 15
Spreed	; + 4.5	T rocerance min : +- 15
Tolerance		rack travel mm : 0.85
cm3/1000 strokes	; 5.5	Tolerance mm : + 0.55
Check to rance		Rated speed rpm : 1400
cm3/10005.	: 9.0	+
		+
(B) SETTING OF IN	IECTION DUMD	+ LOW IDLE
WITH GOVERNOR	ACCITON FORE	T COM TOCK
Water Marker MARK		1
		tontrol lever
		position degree : 66.0
GUIDE SLEEVE POSI	TION	tolerance degree : + 4.0
Rated speed rpm	: 800	+ Setting point w/out bumper spring
Rated Speed rpm	. 000	T second point wood builber spring
Rack travel in mm	: 0.50	Rated speed rpm : 400
Tolerance mm	: ← 0.20	rack travel mm : 5.10
		+
governor spring	•	Testing:
pre-tension	. 250	+ Rated speed rpm : 400
click setting x	: 2.30	rack travel mm : 400
		Tolerance mm : + 0.10
FULL LOAD DELIVER	Y AT FULL LOAD STOP	
		rack travel mm : 2.00
Rated speed rpm	: 1175	Rated speed rpm : 595_
Aneroid pressure		Tolerance 1/min : + 30
hPa		Poted aread area
Del. quantity cm3/1000 strokes	: 88.5	Rated speed rpm : 100
Tolerance	· • • • • • • • • • • • • • • • • • • •	CRT mm min. : > 19.00
cm3/1000 strokes	; 1.0	- 17100
Check tolerance		t .
cm3/1000s.		
• · · · · · · · · · · · · · · · · · · ·	: + 3.0	TORQUE CONTROL
Spreed	•	
Tolerance	: + 3.0	Rated speed rpm : 1175
Tolerance cm3/1000 strokes	: + 3.0	Rated speed rpm : 1175 rack travel mm : 10.25
Tolerance cm3/1000 strokes Check tolerance	: ÷ 3.0	Rated speed rpm : 1175
Tolerance cm3/1000 strokes	: + 3.0	Rated speed rpm : 1175 rack travel mm : 10.25 Tolerance mm : + 0.05
Tolerance cm3/1000 strokes Check tolerance	: ÷ 3.0	Rated speed rpm : 1175 rack travel mm : 10.25 Tolerance mm : + 0.05 Rated speed rpm : 500
Tolerance cm3/1000 strokes Check tolerance	: ÷ 3.0	Rated speed rpm : 1175 rack travel mm : 10.25 Tolerance mm : + 0.05
Tolerance cm3/1000 strokes Check tolerance	: ÷ 3.0	Rated speed rpm : 1175 rack travel mm : 10.25 Tolerance mm : + 0.05 Rated speed rpm : 500 rack travel mm : 11.40 Tolerance mm : + 0.10
Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: ÷ 3.0	Rated speed rpm : 1175 rack travel mm : 10.25 Tolerance mm : + 0.05 Rated speed rpm : 500 rack travel mm : 11.40

Tolerance mm :	← 0.10
FUEL DELIVERY CHARAC	CTERISTICS
Aneroid pressure	
hPa : Rated speed rpm :	500
Del. quantity cm3/1000 strokes :	92.5
Tolerance	
cm3/1000 strokes : Check tolerance	+- 2.0
cm3/1000s. :	+- 4.0
Aneroid pressure	
hPa : Rated speed rpm :	800
Del. quantity cm3/1000 strokes :	93.5
Tolerance	
cm3/1000 strokes : Check tolerance	+- 2.0
cm3/1000s. :	← 4.0
BREAKAWAY Rack travel in mm : Rated speed rpm : Tolerance 1/min :	9.20 1220 + 5
STARTING FUEL DELIVE	ERY 100
rack travel mm :	20.00
Del. quantity	+- 1.00
cm3/1000 strokes : Tolerance	142.0
	+- 8.0
	→ 11.0
LOW IDLE	
LOW IDLE Del. quantity cm3/1000 strokes : Tolerance	16.0

Check tolerance cm3/1000s. : +- 4.5 Spreed Tolerance cm3/1000 strokes : 5.5 Check tolerance cm3/1000s. : 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 03.04.96 : ISO 4113

Combination No. : 9 400 087 459

Injection pump

Pump designation : PES6P120A720LS7181

: -10

EP type number : 0 412 726 870

Governor

Governer design. : RQ300/1050PA911-2

Governer no. : 9 420 080 313

Cust. part No. : 0160743602

Customer-spec. information Customer : MBB Motor

: OM447 LA

Power KW

: 298.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C

40

Tolerance °C

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 1 688 901 105

Opening pressure

: 208.5

Tolerance bar

: +- 1.5

Test Lines : 1 680 750 067

Outside diameter : 6.0

B18

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 26.0

Tolerance bar : + 1.0

5.05 Prestroke mm : +- 0.05

Tolerance mm Check

tolerance mm : + 0.10

Rack travel in mm: 10.50

Tolerance mm : +- 1.50

: 6-2-4-1-5-: 3 Firing order

: 0-60-120-180-240 Phasing

: -300

BASIC SETTING

Rated speed rpm : 600

Rack travel in mm: 15.40

Tolerance mm : + 0.10

Del. quantity

cm3/1000 strokes : 280.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

: +- 4.0

cm3/1000s.

Spreed

Tolerance

cm3/1000 strokes : 5.0

Check tolerance +	
cm3/1000s. : 9.0	FULL LOAD DELIVERY AT FULL LOAD GTOD
Rated speed rpm : 300	FULL LOAD DELIVERY AT FULL LOAD STOP
+	Rated speed rpm : 600
Rack travel in mm: 6.00 + Tolerance mm: +- 0.20 +	Aneroid pressure hPa : 1050
Del. quantity	Del. quantity
cm3/1000 strokes : 15.0 +	cm3/1000 strokes : 280.0
Tolerance + 3.0 +	Tolerance cm3/1000 strokes : +- 1.0
Check tolerance	Check tolerance
cm3/1000s. : +- 6.0 +	cm3/1000s. : +- 4.0
Spreed + Tolerance +	Spreed Tolerance
cm3/1000 strokes : 8.0	cm3/1000 strokes : 5.0
Check tolerance	Check tolerance
cm3/1000s. : 12.0	cm3/1000s. : 9.0
+	
(B) SETTING OF INJECTION PUMP +	CONTROL LEVER
WITH GOVERNOR	CONTROL LEVER
	control lever
GUIDE SLEEVE TRAVEL	position degree : 40.0 tolerance degree : + 4.0
Rated speed rpm : 300	toterance degree : +- 4.5
guide sleeve	control lever
travel mm : 1.75 + Tolerance mm : + 0.25 +	position degree : 101.0 tolerance degree : + 4.0
Toterance (IRI) : += 0.25	toterance degree . *- 4.5
Rated speed rpm : 1120	RATED SPEED
guide sleeve + travel mm : 7.45 +	rack travel mm : 14.00
Tolerance mm : +- 0.25	Rated speed rpm : 1103
+	Tolerance 1/min : + 8
Rated speed rpm : 600 + guide sleeve +	rack travel mm : 4.00
travel mm : 6.00	Rated speed rpm : 1760
Tolerance mm : + 0.10	Tolerance 1/min : +- 15
Rated speed rpm : 1050	rack travel mm : 0.75
guide sleeve	Tolerance mm : + 0.75
travel mm : 6.50 +	Rated speed rpm : 1300
Tolerance mm : +- 0.10	
Rated speed rpm : 1160	
guide sleeve	FOM IDTE
travel mm : 10.00 +	
To the same of the	control lever
CHIDE CLEENE DOCTION	position degree : 74.0
GUIDE SLEEVE POSITION	tolerance degree : +- 4.0
Rated speed rpm : 600	control lever
Book thought in mm : 20.00	position degree : 11.0 tolerance degree : +- 4.0
Rack travel in mm: 20.00 + Tolerance mm: + 0.80 +	socarance degree : T- 4.0
+	Testing:
+	

Rated speed rpm rack travel mm Tolerance mm	: 300 : 6.00 : + 0.10	Check speed 1/min : < 240
rack travel mm	: 2.00	FUEL DELIVERY CHARACTERISTICS
Rated speed rpm	: 400	+
Tolerance 1/min	: +- 20	+ Aneroid pressure
		+ hPa : 1600
Rated speed rpm	: 100	Rated speed rpm : 1050
CRT mm min.	: > 9.00	Del. quantity cm3/1000 strokes : 264.5
		† Tolerance
TORQUE CONTROL		
Rated speed rpm	: 600	Spreed +.3
raceu speeu rpm	15.40	+ Tolerance
rack travel mm Tolerance mm	· + 0.40	cm3/1000 strokes : 8.0
totalice limit	. , 0.10	Check tolerance
Rated speed rpm	1050	+ cm3/1000s. : 12.0
rack travel mm	15.00	5/10000 T
rack travel mm Tolerance mm	: +- 0.10	Aneroid pressure
1001 01100 1111		+ hPa : 1600
Rated speed rpm	: 700	Rated speed rpm : 700
rack travel mm	: 700 : 16.20	+ Del. quantity
Rated speed rpm rack travel mm Tolerance mm	: + 0.10	- cm3/1000 strokes : 298.5
		† Tolerance
ANEROID/ALTITUDE		† Check tolerance
COMPENSATOR TEST		+ cm3/1000s. : + 4.5
		+ Spreed
		† Tolerance
		+ cm3/1000 strokes : 8.0
MEASUREMENT		Check tolerance
		+ cm3/1000s. : 12.0
Pressure hPa		+
rack travel mm		Aneroid pressure
Tolerance mm	: + 0.10	hPa : -
	. 7/0	Rated speed rpm : 500
Pressure hPa		+ Del. quantity + cm3/1000 strokes : 125.0
rack travel mm Tolerance mm	: -1.30 : +- 0.10	+ cm3/1000 strokes : 125.0 + Tolerance
roterance mm	0.10	T cm3/1000 strokes : + 1.0
Pressure hPa	: 1340	Check tolerance
rack travel mm	: 0.30	cm3/1000s. : + 4.0
Tolerance mm	: + 0.10	Spreed
1000121100 11111		Tolerance
Pressure hPa	: 1440	cm3/1000 strokes : 8.0
rack travel mm	: 0.55	Check tolerance
Tolerance mm	: +- 0.05	+ cm3/1000s. : 12.0
		+
START CUT-OUT		BREAKAWAY
	400	†
Rated speed rpm		1 201
Rated speed rpm	: < 220	Rack travel in mm: 14.00
Observation		+ Rated speed rpm : 1103 - Tolerance 1/min : + 8
Check	: > 80	Tolerance 1/min : + 8
speed 1/min	: > 80	I

STARTING FUEL DELIVERY

100 Rated speed rpm

Del. quantity cm3/1000 strokes :

275.0

Tolerance

cm3/1000 strokes : +- 10.0

Check tolerance

cm3/1000s.

: + 14.0

LOW IDLE

300 Rated speed rpm 6.00 rack travel mm Tolerance mm 0.20 Del. quantity cm3/1000 strokes : 15.0 Tolerance 3.0 cm3/1000 strokes : +-Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 03,04,96 : ISO 4113 Test oil

Combination No. : 9 400 087 460

Injection pump

Pump designation : PES6P120A720LS7114

: -13

EP type number : 0 412 726 867

Governor

Governer design: RQ300/1050PA911-3

Governer no. : 9 420 080 314

Cust. part No. : 0140748502

Customer-spec. information : MBB Customer : 0M447 LA Motor Power KW : 260.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

208.5 bar : +- 1.5 Tolerance bar

: 1 680 750 067 Test lines

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm Tolerance mm : +- 0.05 Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 : + 1.50 Tolerance mm

Firing order : 6-2-4-1-5-

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 600

13.50 Rack travel in mm:

: + 0.10 Tolerance mm

Del. quantity

cm3/1000 strokes : 226.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. 4.0

Spreed

Tolerance

cm3/1000 strokes : 5.0

B22

Check tolerance		1
cm3/1000s.	; 9,0	
		FULL LOAD DELIVERY AT FULL LOAD STOP
Rated speed rpm	: 300	†
Dook Americal Su ma		+ Rated speed rpm : 600
Rack travel in mr Tolerance mm	n: 6.00 :+- 0.20	+ Aneroid pressure + hPa : 800
Del. quantity		Del. quantity
cm3/1000 strokes	: 13.5	- cm3/1000 strokes : 226.0
Tolerance		+ Tolerance
cm3/1000 strokes	: +- 3.0	+ cm3/1000 strokes : + 1.0
Check tolerance cm3/1000s.	: +- 6.0	+ Check tolerance + cm3/1000s. : +- 4.0
Spreed		Spreed
Tolerance		+ Tolerance
cm3/1000 strokes	: 8.0	+ cm3/1000 strokes : 5.0
Check tolerance cm3/1000s.	: 12.0	+ Check tolerance + cm3/1000s. : 9.0
CIRCY FULUS.	: 12.0	+ cm3/1000s. : 9.0
		
(B) SETTING OF IN	NJECTION PUMP	+
WITH GOVERNOR		+ CONTROL LEVER
GUIDE SLEEVE TRAN	/FI	position degree : 34.0
	,	+ tolerance degree : + 4.0
Rated speed rpm	: 300	+
guide sleeve	2 75	+ control lever
travel mm Tolerance mm	: 2.75 : + 0.15	+ position degree : 98.0 + tolerance degree : +- 4.0
roterance num	; 0.15	toterance degree : +- 4.0
Rated speed rpm	: 1125	+ RATED SPEED
guide sleeve		+
travel mm	: 7.30	+ rack travel mm : 12.20
Tolerance mm	: +- 0.20	+ Rated speed rpm : 1103 + Tolerance 1/min : + 8
Rated speed rpm	: 600	+ Oterance min
guide sleeve		+ rack travel mm : 4.00
travel mm	: 6.00	+ Rated speed rpm : 1170
Tolerance mm	: +- 0.70	Tolerance 1/min : + 15
Rated speed rpm	: 1050	rack travel mm : 0.75
guide sleeve	. 1020	Tolerance mm : + 0.75
travel mm	: 6.50	+ Rated speed rpm : 1300
Tolerance mm	: +- 0.10	†
Rated speed rpm	: 1175	T
guide sleeve	• 1175	LOW IDLE
travel mm	: 9.45	+
Tolerance mm	: +- 0.25	+
		+ control lever
CHINE SI EEUE DOST	TTON	- + position degree : 76.0 + tolerance degree : + 4.0
GUIDE SLEEVE POSI	ITOM	tolerance degree : + 4.0
Rated speed rpm	: 600	<pre></pre>
. ,		<pre>position degree : 13.0</pre>
Rack travel in mm		tolerance degree : + 4.0
Tolerance mm	: +- 0.80	† + Testing:
		T resumy.

Rated speed rpm rack travel mm Tolerance mm	: 6.00	+ Check + speed 1/min : < 240
rack travel mm Rated speed rpm		FUEL DELIVERY CHARACTERISTICS
Tolerance 1/min		Aneroid pressure : 1500
Rated speed rpm	: 100	Rated speed rpm : 1050 Del. quantity
CRT mm min.	: > 9.00	+ cm3/1000 strokes : 215.0 + Tolerance
TORQUE CONTROL		+ cm3/1000 strokes : + 2.0 + Check tolerance
Rated speed rpm rack travel mm		+ cm3/1000s. : +- 5.0 + Spreed + Tolerance
Tolerance mm		cm3/1000 strokes : 8.0 Check tolerance
Rated speed rpm rack travel mm		cm3/1000s. : 12.0
Tolerance mm		Aneroid pressure + hPa : 1500
Rated speed rpm rack travel mm	: 14.10	Rated speed rpm : 800 Del. quantity
Tolerance mm	: +- 0.10	t cm3/1000 strokes : 239.0 Tolerance
ANEROID/ALTITUDE COMPENSATOR TEST		+ cm3/1000 strokes : + 1.5 + Check tolerance + cm3/1000s. : + 4.5
COMPENSATOR TEST		+ Spreed + Tolerance
MEASUREMENT		cm3/1000 strokes : 8.0 Check tolerance
Pressure hPa	: 240	+ cm3/1000s. : 12.0
rack travel mm Tolerance mm	: -2.80 : + 0.10	Aneroid pressure hPa
Pressure hPa	: 560 : -0.80	Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 131.0
rack travel mm Tolerance mm	÷ 0.10	Tolerance + cm3/1000 strokes : +- 1.0
Pressure hPa rack travel mm	: 920 : 0.25	Check tolerance + 4.0
Tolerance mm	: + 0.05	Spreed Tolerance
Pressure hPa rack travel mm	: 980 : 0.45	cm3/1000 strokes : 8.0 Check tolerance
Tolerance mm	: - 0.05	+ cm3/1000s. : 12.0
START CUT-OUT		BREAKAWAY
Rated speed rpm Rated speed rpm		Rack travel in mm: 12.20 Rated speed rpm: 1103
Check speed 1/min	: > 80	Tolerance 1/min : +- 8

STARTING FUEL DELIVERY

Rated speed rpm : 100
Del. quantity
cm3/1000 strokes : 230.0
Tolerance
cm3/1000 strokes : + 10.0
Check tolerance
cm3/1000s. : + 14.0

LOW IDLE

Rated speed rpm 300 6.00 rack travel mm : +- 0.20 Tolerance mm Del. quantity cm3/1000 strokes : 13.5 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 6.0 ; +-Spreed Tolerance 8.0 cm3/1000 strokes : Check tolerance 12.0 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 03,04,96 Test oil : ISO 4113

Combination No. : 9 400 087 461

Injection pump

Pump designation : PES5P120A720LS7174

: -10

EP type number : 0 412 725 815

Governor

Governer design. : RQ300/1050PA774-6

: 9 420 080 315 Governer no.

Cust. part No. : 0140748202

Customer-spec. information Customer : MBB : OM449 A Motor : 184.0 Power KW

TEST BENCH REQUIREMENTS

: 3.1 Inlet line

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

208.5 Tolerance bar : **←** 1.5

: 1 680 750 067 Test lines

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm 5.25 Tolerance mm : +- 0.05 Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 : +- 1.50 Tolerance mm

: 1-3-5-4-2 Firing order

: 0-72-144-216-288 Phasing

BASIC SETTING

Rated speed rpm 600

Rack travel in mm: 14.00

Tolerance mm : +- 0.10

Del. quantity cm3/1000 strokes : 194.5

Tolerance

cm3/1000 strokes : +-1.0

Check tolerance cm3/1000s. : +--

Spreed Tolerance

cm3/1000 strokes : 5.0

Check tolerance cm3/1000s.

9.0

4.0

Rated speed rpm	: 300	+ Aneroid pressure	
· ·		+ hPa	: 700
Rack travel in mm	n: 6.80	<pre>Del. quantity</pre>	
Tolerance mm	: +- 0.20	+ cm3/1000 strokes	: 194.5
Del. quantity		+ Tolerance	
cm3/1000 strokes	: 20.0	+ cm3/1000 strokes	: +- 1.0
Tolerance		+ Check tolerance	
cm3/1000 strokes	: +- 3.0	+ cm3/1000s.	: +- 4.0
Check tolerance		+ Spreed	
cm3/1000s.	: +- 6.0	+ Tolerance	
Spreed		+ cm3/1000 strokes	: 5.0
Tolerance		+ Check tolerance	
cm3/1000 strokes	: 8.0	+ cm3/1000s.	: 9.0
Check tolerance		+	
cm3/1000s.	: 12.0	+	
		+ CONTROL LEVER	
(B) SETTING OF IN	NECTION PUMP	+	
WITH GOVERNOR		+ control lever	
		position degree	: 36.0
		+ tolerance degree	
GUIDE SLEEVE TRAV	EL	+	
		+ control lever	
Rated speed rpm	: 300	<pre>position degree</pre>	: 98.0
guide sleeve		+ tolerance degree	
travel mm	: 2.15	+	
Toterance mm	: + 0.25	+ RATED SPEED	
		+	
Rated speed rpm	: 1110	+ rack travel mm	: 13.70
guide sleeve		Rated speed rpm	: 1103
travel mm	: 6.45	+ Tolerance i/min	
Tolerance mm	: +- 0.25	+	
		+ rack travel mm	: 4.00
Rated speed rpm	: 600	+ Rated speed rpm	: 1175
guide sleeve		Tolerance 1/min	
travel mm	: 6.00	+	
Tolerance mm	: ← 0.10	+ rack travel mm	: 0.75
		+ Tolerance mm	: - 0.75
Rated speed rpm	: 1050	+ Rated speed rpm	: 1300
guide sleeve		+	
travel mm	: 6.00	1	
Tolerance mm	: + 0.10		
		+ LOW IDLE	
Rated speed rpm	: 1170	+	
guide sleeve		+	
travel mm	: 9.15	+ control lever	
Tolerance mm	: +- 0.25	<pre>position degree</pre>	: 76.0
		+ tolerance degree	
		+	
GUIDE SLEEVE POSIT	TION	+ control lever	
		position degree	: 13.0
Rated speed rpm	: 600	+ tolerance degree	: +- 4.0
		+	
Rack travel in mm	: 20.00	+ Testing:	
Tolerance mm		+	
		+ Rated speed rpm	: 300
		+ rack travel mm	
FULL LOAD DELIVERY	Y AT FULL LOAD STOP	Tolerance mm	: + 0.10
		+	
Rated speed rpm	: 600	rack travel mm	: 2.00
, , , , ,		•	

Rated speed rpm Tolerance 1/min	: 410 : +- 20	+ Aneroid pressure + hPa	: 1300
Rated speed rpm	: 100	Rated speed rpm Del. quantity	: 1050
CRT mm min.		cm3/1000 strokes Tolerance	: 210.0
		cm3/1000 strokes Check tolerance	: ← 1.5
TORQUE CONTROL		cm3/1000s.	: +- 4.5
Rated speed rpm rack travel mm		Tolerance cm3/1000 strokes	: 8.0
Tolerance mm		Check tolerance cm3/1000s.	
Rated speed rpm rack travel mm	: 1050 : 14.70	Aneroid pressure	. 12.0
Tolerance mm	: +- 0.10	hPa Rated speed rpm	: 1300 : 750
Rated speed rpm	: 750 : 14.70	Del. quantity cm3/1000 strokes	
rack travel mm Folerance mm	: + 0.10	Tolerance cm3/1000 strokes	
ANEROID/ALTITUDE			
COMPENSATOR TEST		Spreed	; + 5.0
		+ Tolerance + cm3/1000 strokes + Check tolerance	
MEASUREMENT		cm3/1000s.	
Pressure hPa Pack travel mm	: 340 : -2.20	Aneroid pressure	•
olerance mm		Rated speed rpm Del. quantity	500
Pressure hPa Pack travel mm	: 520 : -0.80	cm3/1000 strokes	: 132.0
olerance mm	: + 0.10	cm3/1000 strokes Check tolerance	: +- 1.0
ressure hPa	960 0.25	cm3/1000s.	: +- 4.0
rack travel mm Folerance mm	: ← 0.05	Tolerance cm3/1000 strokes	: 8.0
ressure hPa	: 1040 : 0.45	Check tolerance	
ack travel mm olerance mm	: ← 0.05		: 12.0
TART CUT-OUT		BREAKAWAY	
ated speed rpm	: > 100	Rack travel in mm	: 13.70
ated speed rpm		Rated speed rpm Tolerance 1/min	: 1103
heck peed 1/min	; > 80	1	
heck peed 1/min	: < 240	STARTING FUEL DEL	IVERY
		Rated speed rpm	: 100
		- Del. quantity	

Tolerance cm3/1000 strokes : +- 10.0 Check tolerance cm3/1000s. : +- 14.0

LOW IDLE

Rated speed rpm 300 rack travel mm 6.80 Tolerance mm : +- 0.20 Del. quantity 20.0 cm3/1000 strokes : Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : +- 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 02.04.96 Test oil : ISO 4113

Combination No. : 9 400 087 500

Injection pump

Pump designation : PES6P120A720LS7257

: -10

EP type number : 9 400 087 086

Governor

Governer design. : RQV300...950PA1242

Governer no. : 9 420 080 387

Cust. part No. : 0260746602

Customer-spec. information

Customer : MBB

Motor : OM 447 LA

Power KW : 264.8

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 2.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.65
Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm: 21.00

Firing order : 6-2-4-1-5-

: 3

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance *NW : + 0.50

BASIC SETTING

Rated speed rpm : 600

Rack travel in mm: 14.25

Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 275.5

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 4.0

Spreed

Tolerance

cm3/1000 strokes : 5.0

: 5.0

Check tolerance cm3/1000s.	; 9.0	Aneroid pressure	: 1300
Del. quentity cm3/1000 strokes	: 16.5	Del. quantity cm3/1000 strokes Tolerance	: 275.5
Tolerance cm3/1000 strokes		- cm3/1000 strokes - Check tolerance	: + 1.0
Check tolerance cm3/1000s.	: +- 6.0	- cm3/1000s. - Spreed	: +- 4.0
Spreed Tolerance	0.0	Tolerance cm3/1000 strokes	: 5.0
cm3/1000 strokes Check tolerance	: 8.0	Check tolerance cm3/1000s.	: 5.0
cm3/1000s.	: 12.0		. ,,,,
(B) SETTING OF IN. WITH GOVERNOR	JECTION PUMP	CONTROL LEVER	
		+ control lever	
***************************************		<pre>+ position degree</pre>	
GUIDE SLEEVE TRAVE		tolerance degree	: +- 4.0
Rated speed rpm	: 1050	+ control lever	
guide sleeve	. 7.00	+ position degree	
travel mm	: 7.80 : +- 0.10	tolerance degree	: ← 4.0
Tolerance mm		RATED SPEED	
Rated speed rpm guide sleeve	: 700	T rack travel mm	: 12.60
travel mm	: 5.45	+ Rated speed rpm	
Tolerance mm	: +- 0.25	Tolerance 1/min	
Rated speed rpm guide sleeve	: 300	rack travel mm Rated speed rpm	: 4.00 : 1125
travel mm	: 0.75	+ Tolerance 1/min	
Tolerance mm	: +- 0.25	rack travel mm	: 0.50
Rated speed rpm	: 500	Tolerance mm	: +- 0.50
guide sleeve		Rated speed rpm	: 1230
travel mm	: 3.25	+	
Tolerance mm	: +- 0.25	<u> </u>	
Rated speed rpm guide sleeve	: 1165	LOW IDLE	
travel mm	: 9.45	+	
Tolerance mm	: +- 0.25	+ control lever	
		position degree	
GUIDE SLEEVE POSIT	ION	tolerance degree	: +- 4.0
Rated speed rpm	: 1120	control lever position degree	
Rack travel in mm	. 14 50	tolerance degree	: +- 4.0
Tolerance mm		Testing:	
TOTEL OUTE IM	t . U	T resume.	
		Rated speed rpm	: 300
FULL LOAD DELIVERY	AT FULL LOAD STOP	+ rack travel mm	
		Tolerance mm	: +- 0.10
Rated speed rpm	: 600	†	400
		+ Rated speed rpm	: 100

CRT mam min.	: > 9.20	Check speed 1/min : < 240
Rated speed rpm	: 325	FUEL DELIVERY CHARACTERISTICS
TORQUE CONTROL		Aneroid pressure hPa : 1300
Rated speed rpm rack travel mm Tolerance mm	: 600 : 14.25	Rated speed rpm : 950 Del. quantity
		- cm3/1000 strokes : 245.5 - Tolerance
Rated speed rpm rack travel mm Tolerance mm	: 950 : 13.65 : +- 0.05	+ cm3/1000 strokes : + 2.0 + Check tolerance + cm3/1000s. : + 5.0
Rated speed rpm		+ Spreed + Tolerance
rack travel mm Tolerance mm	: 14.25	cm3/1000 strokes : 8.0 Check tolerance
Rated speed rpm	: 840	cm3/1000s. : 12.0
rack travel mm Tolerance mm	: 13.90	- Aneroid pressure
Tolerance mm	: +- 0.10	+ hPa : 1300
		Rated speed rpm : 750 Del. quantity
ANEROID/ALTITUDE COMPENSATOR TEST		cm3/1000 strokes : 265.5
		cm3/1000 strokes : +- 2.0 Check tolerance
SETTING		+ cm3/1000s. : + 5.0 + Spreed
Rated speed rpm	: 500	† Tolerance
Pressure hPa	: 1300 : 14.25	+ cm3/1000 strokes : 8.0 + Check tolerance
rack travel mm Tolerance mm	: + 0.05	cm3/1000s. : 12.0
MEASUREMENT		Aneroid pressure
Pressure hPa	: -	+ Rated speed rpm : 500
Rated speed rpm	: 500	Del. quantity
Rated speed rpm	: 500	+ cm3/1000 strokes : 146.5 + Tolerance + cm3/1000 strokes : +- 1.0
Pressure hPa	: 760	+ Check tolerance
rack travel mm Tolerance mm		cm3/1000s. : +- 4.0 Spreed
Business to the		+ Tolerance
Pressure hPa	: 500 : 0.90	cm3/1000 strokes : 5.0 Check tolerance
rack travel mm Tolerance mm	÷ 0.10	cm3/1000s. : 9.0
START CUT-OUT		BREAKAWAY
Rated speed rpm	: > 100	1
Rated speed rpm	: < 220	Rack travel in mm : 12.60 Rated speed rpm : 1000
Check speed 1/min	: > 80	Tolerance 1/min : + 5

STARTING FUEL DELIVERY

Rated speed rpm 100

Del. quantity cm3/1000 strokes : 236.0

Tolerance

cm3/1000 strokes : + 10.0

Check tolerance

: +- 14.0 cm3/1000s.

LOW IDLE

Del. quantity cm3/1000 strokes : 16.5

Tolerance

cm3/1000 strokes : +-3.0

Check tolerance

cm3/1000s. 6.0

Spreed

Tolerance

cm3/1000 strokes : 8.0

Check tolerance cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 29.03.96 Test oil : ISO 4113

Combination No. : 0 402 066 702

Injection pump

Pump designation : PES6P110A120RS3336

: -1

EP type number : 0 412 016 751

Governor

Governer design. : RSV550...1100P2A586

: -1 Governer no. : 0 421 833 480

Cust. part No. : 3926887

Customer—spec. information Customer : CDC Motor : 6CTA Power KW : 194.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 2 417 413 086

Inlet press. bar : 2.0
Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 103

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm : 3.60 Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance *NW : + 0.75

Start of delivery blocking

°NW after s.o.d. : 8.00Tolerance : \leftarrow 0.50

Check

tolerance "NW : + 0.75

Barrel no. : 1

Beginning of delivery differende

and maximum rack

travel : 15.00 Difference ° CS : 1.50

†	Aneroid pressure
BASIC SETTING	hPa : 1500 Del. quantity
Rated speed rpm : 1100	cm3/1000 strokes : 187.0 Tolerance
Tated speed (bill . 1100	cm3/1000 strokes : +- 1.0 Check tolerance
Rack travel in mm: 14.25 Tolerance mm: + 0.05	cm3/1000s. : +- 3.0 Spreed Tolerance
Del. quantity cm3/1000 strokes : 187.0	cm3/1000 strokes : 8.0 Check tolerance
Tolerance cm3/1000 strokes : + 1.0	cm3/1000s. : 12.0
Check tolerance cm3/1000s. : +- 3.0	CONTROL LEVER
	control lever
Spreed Tolerance	position degree : 95.0 tolerance degree : + 4.0
cm3/1000 strokes : 8.0	RATED SPEED
Check tolerance cm3/1000s. : 12.0	rack travel mm : 13.25 Rated speed rpm : 1185
Del. quantity	Tolerance 1/min : +- 5
cm3/1000 strokes : 26.5	rack travel mm : 8.50
cm3/1000 strokes : +- 2.0 +	Rated speed rpm : 1235
Check tolerance + 4.5 + 4.5	Tolerance 1/min : + 5
Spreed	rack travel mm : 0.85
Tolerance	Tolerance mm : + 0.55
cm3/1000 strokes : 4.0 + Check tolerance	Rated speed rpm : 1400
cm3/1000s. : 6.5	
‡	LOW IDLE
(B) SETTING OF INJECTION PUMP	53.
WITH GOVERNOR	control lever
+	position degree : 67.5
GUIDE SLEEVE POSITION	tolerance degree : +- 4.0
+	Setting point w/out bumper spring
Rated speed rpm : 800	Rated speed rpm : 550
Rack travel in mm : 0.50 Tolerance mm : +- 0.20	rack travel mm : 4.60
+	Testing:
governor spring + pre-tension +	Rated speed rpm : 550
click setting x : 3.50	rack travel mm : 5.10
+	Tolerance mm : +- 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 100
Rated speed rpm : 1100	CRT mm min. :> 19.00
Ť	

TORQUE CONTROL

Rated speed rpm : 1100 rack travel mm : 14.25 Tolerance mm : +- 0.05

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 1000 Pressure hPa : 1500

MEASUREMENT

Pressure hPa : Rated speed rpm : 1000
rack travel mm : 11.10
Tolerance mm : + 0.20

Rated speed rpm : 1000

Pressure hPa : 995
rack travel mm : 13.45
Tolerance mm : + 0.20

Pressure hPa : 655
rack travel mm : 12.05
Tolerance mm : +- 0.20

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : Rated speed rpm : 1000
Del. quantity
cm3/1000 strokes : 122.5
Tolerance
cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 3.0

BREAKAWAY

Rack travel in mm: 13.25
Rated speed rpm: 1185
Tolerance 1/min: +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 21.00
Tolerance mm : + 0.50
Del. quantity
cm3/1000 strokes : 154.0
Tolerance
cm3/1000 strokes : + 20.0
Check tolerance
cm3/1000s : + 25.0

LOW IDLE

Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000S. Spreed	: +-	26.5 2.0 4.5	
Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	:	4.0 6.5	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 28.03.96 Test oil : ISO 4113

Combination No. : 0 402 776 834

Injection pump

Pump designation : PES6P12OA72ORS7382 EP type number : 0 412 726 943

Governor

Governer design. : RSV400...750P4A610

: -1

Governer no. : 0 421 833 520

Cust. part No. : RE66451

Customer-spec. information
Customer : DEERE
Motor : 6081 HF001
Power KW : 175.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 2 417 413 079

Inlet press. bar : 2.0

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm : 3.60
Tolerance mm : + 0.05
Check
tolerance mm : + 0.10

Rack travel in mm : 10.50

Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300 Tolerance : + 0.30

Check

tolerance *NW : +- 0.75

Start of delivery blocking

*NW after s.o.d. : 9.00 Tolerance : + 0.50

Check

tolerance °NW : + 0.75

Barrel no. : 1

Beginning of delivery differende

and maximum rack

travel : 14.00 Difference ° CS : 2.50

BASIC SETTING

Rated speed rpm : 700

CO9

+	Check tolerance
Rack travel in mm : 13.40 Tolerance mm : +- 0.05	cm3/1000s. : +- 4.0 Spreed Tolerance
Del. quantity	cm3/1000 strokes : 5.0 Check tolerance
cm3/1000 strokes : 247.0	cm3/1000s. : 9.0
Tolerance cm3/1000 strokes : +- 1.0	CONTROL LEVER
Check tolerance cm3/1000s. : + 4.0	control lever
Spreed Tolerance	position degree : 91.0 tolerance degree : +- 4.0
cm3/1000 strokes : 5.0	RATED SPEED
Check tolerance cm3/1000s. : 9.0	rack travel mm : 12.00 Rated speed rpm : 755 Tolerance 1/min : + 5
Del. quantity cm3/1000 strokes : 22.0 Tolerance	rack travel mm : 4.00 Rated speed rpm : 790
cm3/1000 strokes : + 3.0 + Check tolerance +	Tolerance 1/min : +- 5
cm3/1000s. : + 5.0 + 5.0	rack travel mm : 0.85 Tolerance mm : + 0.55
Tolerance + cm3/1000 strokes : 8.0	Rated speed rpm : 950
Check tolerance cm3/1000s. : 12.0	rack travel mm : 4.00 Rated speed rpm : 820
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	LOW IDLE
 ‡	control lever
GUIDE SLEEVE POSITION	position degree : 74.0 tolerance degree : +- 4.0
Rated speed rpm : 800	Setting point w/out bumper spring
Rack travel in mm: 0.50 + Tolerance mm: + 0.20 +	Rated speed rpm : 400 rack travel mm : 5.00
governor spring + pre-tension + click setting x : 2.50 +	Testing:
tick setting x : 2.30	Rated speed rpm : 400
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 5.50 Tolerance mm : + 0.10
Rated speed rpm : 700 + Aneroid pressure	Rated speed rpm : 100
hPa : - +	CRT mm min. :> 19.00
cm3/1000 strokes : 247.0 +	TORQUE CONTROL
Tolerance cm3/1000 strokes : +- 1.0 +	IONADE COMINOS

700 Rated speed rpm : rack travel mm : 13.40 Tolerance mm : ← 0.05 START CUT-OUT Rated speed rpm : > 100 Check speed 1/min : > 80 BREAKAWAY Rack travel in mm: 12.00 Rated speed rpm : Tolerance 1/min : +-STARTING FUEL DELIVERY 100 Rated speed rpm : 20.50 rack travel mm Tolerance mm : **←** 0.50 Del. quantity cm3/1000 strokes : 105.0 Tolerance cm3/1000 strokes : +- 20.0Check tolerance cm3/1000s. : +- 25.0 LOW IDLE Del. quantity cm3/1000 strokes : 22.0 Tolerance 3.0 cm3/1000 strokes : +-Check tolerance cm3/1000s. 5.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance 12.0 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 28,03,96 : ISO 4113

Combination No. : 0 402 776 835

Injection pump

Pump designation : PES6P120A720RS7382

EP type number : 0 412 726 943

Governor

Governer design. : RSV400...750P4A607

: -1

Governer no.

: 0 421 833 521

Cust. part No. : RE66458

Customer-spec. information Customer : DEERE

Motor

: 6081 HF001

Power KW

: 175.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C

40

Tolerance *C

: +- 2.0

Overflow valve

: 2 417 413 079

Inlet press. bar : 2.0

Test nozzle holde

assembly

: 1 688 901 101

Opening pressure

C12

208.5

Tolerance bar

: + 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar: 17.0 Tolerance bar : + 1.0

Prestroke mm : 3.60

; +- 0.05 Tolerance mm

Check

: +- 0.10 tolerance mm

Rack travel in mm: 10.50

Tolerance mm : \leftarrow 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.30

Check

tolerance °NW : +- 0.75

Start of delivery blocking

*NW after s.o.d. : 9.00

: +- 0.50 Tolerance

Check

tolerance °NW : + 0.75

: 1 Barrel no.

Beginning of delivery differende

and maximum rack

travel

14.00

Difference ° CS : 2.50

BASIC SETTING

Rated speed rpm : 700

	Check tolerance
Rack travel in mm : 13.40 Tolerance mm : + 0.05	Spreed Tolerance cm3/1000 strokes : 5.0
Del. quantity cm3/1000 strokes : 247.0	Check tolerance : 9.0
Tolerance cm3/1000 strokes : + 1.0	
Check tolerance cm3/1000S. : +- 4.0	- CONTROL LEVER - control lever
Spreed Tolerance	- position degree : 91.0 - tolerance degree : +- 4.0
cm3/1000 strokes : 5.0	RATED SPEED
Check tolerance cm3/1000S. 9.0	rack travel mm : 12.00 Rated speed rpm : 755 Tolerance 1/min : + 5
Del. quantity cm3/1000 strokes : 22.0 Tolerance	rack travel mm : 4.00 Rated speed rpm : 790
cm3/1000 strokes : +- 3.0 Check tolerance	Tolerance 1/min : +- 5
cm3/1000S. : + 5.0 + Spreed + Tolerance + 5.0	rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 950
cm3/1000 strokes : 8.0 Check tolerance	rack travel mm : 4.00
cm3/1000s. : 12.0	Rated speed rpm : 820
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	- LOW IDLE
GUIDE SLEEVE POSITION	- control lever - position degree : 74.0 - tolerance degree : +- 4.0
Rated speed rpm : 800	- Setting point w/out bumper spring
Rack travel in mm: 0.50 Tolerance mm: + 0.20	- Rated speed rpm : 400 - rack travel mm : 5.00
governor spring pre-tension click setting x : 2.50	- Testing:
FULL LOAD DELIVERY AT FULL LOAD STOP	- Rated speed rpm : 400 - rack travel mm : 5.50 - Tolerance mm : +- 0.10
	Rated speed rpm : 100
Aneroid pressure hPa : -	- CRT mm min. : > 19.00
Del. quantity cm3/1000 strokes : 247.0 Tolerance cm3/1000 strokes : +- 1.0	TORQUE CONTROL
· · · · · · · · · · · · · · · · · · ·	

Rated speed rpm rack travel mm Tolerance mm	: +	700 13.40 - 0.05	
START CUT-OUT			
Rated speed rpm	; >	100	
Check speed 1/min	; >	80	
BREAKAWAY			
Rack travel in mm Rated speed rpm Tolerance 1/min		12.00 755 - 5	
STARTING FUEL DEL	IVER'	Y	
Rated speed rpm rack travel mm Tolerance mm	: +	20.50	
Del. quantity cm3/1000 strokes Tolerance	:	105.0	
cm3/1000 strokes Check tolerance	: +-	- 20.0	
cm3/1000s.	: +	- 25.0	
LOW IDLE	<u></u>		
Del. quantity cm3/1000 strokes Tolerance	:	22.0	
cm3/1000 strokes Check tolerance	: +-	3.0	
cm3/1000S. Spreed	: +	5.0	
Tolerance cm3/1000 strokes	:	8.0	
Check tolerance cm3/1000s.	•	12.0	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 03.04.96 Edition tartion : U3.U4.96
Test oil : ISO 4113

Combination No. : 9 400 030 740

Injection pump

Pump designation : PES6A95D320/3RS2881

EP type number : 9 410 037 215

Governor

Governer design. : RSV425...1200A0C853R Governer no. : 9 420 034 719

Cust. part No. : 3929410

Customer-spec. information Customer : CDC : 6BT Motor Power KW : 100.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : + 2.0 Tolerance °C

Overflow valve : 1 417 413 047

Inlet press. bar : 2.0
Tolerance bar : +- 0.1

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

bar : 208.5 Tolerance bar : +- 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

C15

x inside diameter: 2.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.50

Check

tolerance °NW : + 0.75

Start of delivery blocking

*NW after s.o.d. : 7.50 Tolerance : \leftarrow 0.50

Check

: +- 0.75 tolerance "NW

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm: 10.85

Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 90.0	Check tolerance cm3/1000s. : 6.5
Tolerance cm3/1000 strokes : +- 1.0	CONTROL LEVER
Check tolerance cm3/1000s. : +- 3.0	control lever position degree : 101.5
Spreed Tolerance cm3/1000 strokes : 4.0	tolerance degree : +- 4.0 RATED SPEED
Check tolerance cm3/1000s. : 6.5	rack travel mm : 9.85 Rated speed rpm : 1250
Del. quantity + cm3/1000 strokes : 18.5	Tolerance 1/min : + 5 rack travel mm : 4.50
Tolerance cm3/1000 strokes : +- 2.0 check tolerance	Rated speed rpm : 1305 Tolerance 1/min : + 5
cm3/1000S. : +- 4.5 Spreed Tolerance	rack travel mm : 0.85 Tolerance mm : +- 0.55 Rated speed rpm : 1400
cm3/1000 strokes : 6.0 + Check tolerance cm3/1000s. : 8.0 + Check tolerance cm3/1000s.	rack travel mm : 4.50 Rated speed rpm : 1310
(B) SETTING OF INJECTION PUMP	Vertical Control of the Control of t
WITH GOVERNOR	LOW IDLE
	control lever position degree : 78.0 tolerance degree : +- 4.0
GUIDE SLEEVE POSITION Rated speed rpm : 800	control lever position degree : 78.0
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20	control lever position degree : 78.0 tolerance degree : +- 4.0
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50	control lever position degree : 78.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 425 rack travel mm : 4.60 Testing:
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension	control lever position degree : 78.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 425 rack travel mm : 4.60
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 3.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200	control lever position degree : 78.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 425 rack travel mm : 4.60 Testing: Rated speed rpm : 425 rack travel mm : 5.10
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 3.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : 900	control lever position degree : 78.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 425 rack travel mm : 4.60 Testing: Rated speed rpm : 425 rack travel mm : 5.10 Tolerance mm : +- 0.10
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 3.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : 900 Del. quantity cm3/1000 strokes : 90.0 Tolerance	control lever position degree : 78.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 425 rack travel mm : 4.60 Testing: Rated speed rpm : 425 rack travel mm : 5.10 Tolerance mm : +- 0.10 Rated speed rpm : 100
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 3.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : 900 Del. quantity cm3/1000 strokes : 90.0	control lever position degree : 78.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 425 rack travel mm : 4.60 Testing: Rated speed rpm : 425 rack travel mm : 5.10 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.00

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm	:	800
Pressure hPa	:	900

MEASUREMENT

Pressure hPa		-
Rated speed rpm	:	800
rack travel mm	:	8.70
Tolerance mm	: +	- 0.20

Rated speed rpm : 80	Rated	speed	rom		800
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Pressure hPa	:	450
rack travel mm	:	10.50
Tolerance mm	: +	-0.20

Pressure hPa	:	275
rack travel mm		9.50
Tolerance mm	: -	+- 0.20

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

HIGH O IM PI COOM C		
hPa	•	-
Rated speed rpm	:	800
Del. quantity		
cm3/1000 strokes	•	65.5
Tolerance		
cm3/1000 strokes	: +	- 1.0
Check tolerance		

: +- 3.0

BREAKAWAY

cm3/1000s.

Rack travel in mm	:	9.85
Rated speed rpm	:	1250
Tolerance 1/min	:	+- 5

STARTING FUEL DELIVERY

Rated speed rpm rack travel mm Tolerance mm	: +-	100 20.50 - 0. 50
Del. quantity cm3/1000 strokes	:	120.5

Tolerance cm3/1000 strokes : +- 10.0 Check tolerance cm3/1000s. : +- 15.0

LOW IDLE

Del. quantity cm3/1000 strokes	:	18.5
Tolerance cm3/1000 strokes Check tolerance	: +	2.0
cm3/1000s. Spreed	: +-	4.5
Tolerance cm3/1000 strokes	:	6.0
Check tolerance cm3/1000s.	:	8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 03.04.96 Test oil : ISO 4113

Combination No. : 0 400 074 873

Injection pump

Pump designation : PES4M55C32ORS184 EP type number : 0 410 054 938

Governor

Governer design. : RSF375/2000M87 Governer no. : 0 420 021 290

Cust. part No. :

Customer-spec. information
Customer : M8-PKW
Motor : OM601-2.3L
Power KW : 60.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 469 990 351

Inlet press. bar : 1.0

Test nozzle holde

assembly : 1 688 901 111

Opening pressure

bar : 148.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.05
Tolerance mm : +- 0.05
Check
tolerance mm : +- 0.10

Rack travel in mm : 21.00 Tolerance mm : +- 1.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Start of delivery blocking

*NW after s.o.d. : 16.50
Tolerance : + 0.20
Check
tolerance *NW : + 0.30

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 12.70 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 40.5

Tolerance

Spreed

cm3/1000 strokes : +- 0.5

Check tolerance cm3/1000s. : + 1.5

Tolerance

cm3/1000 strokes : 2.5

Check tolerance 3.0 cm3/1000s. Rated speed rpm : 1000 Rated speed rpm : 375 Rack travel in mm: 4.70 Tolerance mm : +- 0.10 LOW IDLE Del. quantity cm3/1000 strokes : Tolerance cm3/1000 strokes : +-Spreed Tolerance cm3/1000 strokes : 1.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR IDLE STAGE Rack travel in mm: 6.25 Tolerance mm : + 0.25 FULL LOAD DELIVERY AT FULL LOAD STOP 1000 Rated speed rpm : Ref. pressure ALDA / ADA hPa : 1100 Del. quantity cm3/1000 strokes : 40.5 Tolerance cm3/1000 strokes : +- 0.5 Check tolerance cm3/1000s. : + 1.5 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. 3.0 RATED SPEED control lever position degree : 50.0 9.00 rack travel mm : 2200 Rated speed rpm : rack travel mm : 0.50 : + 0.50 Tolerance mm SETTING Rated speed rpm : 2500 SET IDLE CONTROL LEVER POSITION

CRT mm max. : 1.45 control lever position degree : 12.5 tolerance degree : +- 2.0 Setting point w/out bumper spring Rated speed rpm : 375 rack travel mm : SET IDLE AUXILIARY SPRING Rated speed rpm : 450 rack travel mm : 3.40 : + 0.10 Tolerance mm Load pick-up Rated speed rpm : 250 CRT mm min. : > 10.20 : 1000 Rated speed rpm CRT mm max. : 4.70 rack travel mm : Rated speed rpm : 375 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 12.70
Tolerance mm : + 0.05 Rated speed rpm : 1500 rack travel mm : 12.30 Tolerance mm : +- 0.10 Rated speed rpm : 1950 rack travel mm : 12.20 Tolerance mm : + 0.10 ADJUSTMENT TEST ADA/ALDA Rated speed rpm : 1000 Ref. pressure ALDA / ADA hPa : 940

rack travel mm			
Tolerance mm	; +- 0.10	STARTING FUEL DELIVERY	
MEASUREMENT	+		
	1000	Rated speed rpm : 100	
Rated speed rpm Ref. pressure	: 1000	rack travel mm : > 20.10 Del. quantity	
ALDA / ADA hPa	: 900	cm3/1000 strokes : 59.0	
rack travel mm	-0.40	Tolerance	
Tolerance mm	: + 0.10 	$cm3/1000$ strokes : \leftarrow 4.0	
	1000	Check tolerance	
Rated speed rpm	: 1000	cm3/1000s. : +- 5.0 Spreed	
Ref. pressure ALDA / ADA hPa	· 750 I	Tolerance	
rack travel am		cm3/1000 strokes : 6.0	
Tolerance mm		Check tolerance	
	+	cm3/1000s. : 6.0	
45.5			
FUEL DELIVERY CHA	RACTERISTICS +		
Ref. pressure	: 1100	LOW IDLE	
ALDA / ADA hP@ Rated speed rpm		Del. quantity	
Del. quantity	1355	cm3/1000 strokes : 7.8	
cm3/1000 strokes	: 41.0	Check tolerance	
Tolerance	+	cm3/1000s. : +- 2.3	
cm3/1000 strokes	; + u.8 †	Spreed	
Check tolerance cm3/1000s.	: +- 1.8	Check tolerance cm3/1000s. : 1.5	
Spreed	1.0	Cilip (10003: 1.)	
Tolerance	1		
cm3/1000 strokes	: 2.5		
Check tolerance	+		
cm3/1000s.	: 3.0	Grad : > 47.00	
Ref. pressure	I	Grad : > 47.00	
ALDA / ADA hPa	: 1100	Grad : < 44,50	
Rated speed rpm			
Spreed	+		
Del. quantity	115	SETTING PNEUMATIC FAST IDLE (ELA)	ı
cm3/1000 strokes Tolerance	: 41.5		
cm3/1000 strokes	: + 1.0 I	control lever	
Check tolerance	1	position degree : 12.5	
cm3/1000s.	: + 2.0 +	tolerance degree : - 2.0	
Spreed	+	Day to the country of	
Tolerance	. ,,	Rated speed rpm : 425	
cm3/1000 strokes Check tolerance	: 2.5	Rack travel in mm : 7.30	
cm3/1000s.	: 3.5	Tolerance mm : +- 0.80	
	+	Del. quantity	
	+	cm3/1000 strokes : 16.0	
		Tolerance	
HIGH IDLE	†	cm3/1000 strokes : +- 3.5 Check tolerance	
Raf nraceuna	Ĭ	cm3/1000s. : +- 4.5	
Ref. pressure ALDA / ADA hPa	: 1100	Vacuum hPa : 400.0	
	· · · · · · · · · · · · · · · · · · ·		

SETTING/TESTING ELECTRONIC IDLE REGULATION (ELR)

control lever

position degree : 12.5 tolerance degree : + 2.0

control lever

position degree : 50.0

ADJUSTMENT

control lever

position degree : 50.0

TESTING PNEUMATIC SHUTOFF DEVICE

Rated speed rpm : 375

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 01.04.96 Edition Test oil : ISO 4113

Combination No. : 0 401 878 140

Injection pump

Pump designation : PE8P120A520/5RS427 EP type number : 0 411 828 048

Governor

Governer design. : RSUV300...900P0A320

: -1

: 0 421 829 107 Governer no.

Cust. part No. :

Customer-spec. information

Customer : MWM : TBD 234 V8 Motor

Power KW : 400.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 019 assembly

Opening pressure

208.5 bar : +- 1.5 Tolerance bar

Test lines : 1 680 750 067

Outside diameter : 6.0

x inside diameter: 1.5

x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm 2.85 : +- 0.05 Tolerance mm

Check

tolerance mm : + - 0.10

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

Firing order : 1-8-5-4-7

: - 2- 3- 6

: 0-30-90-120-180 Phasing

: -210-270-300

Tolerance : + 0.50

Check

tolerance °NW : + - 0.75

Start of delivery mark

Tolerance : ← 0.50

Check

tolerance °NW : +- 0.75

1 Barrel no.

BASIC SETTING

Rated speed rpm : 900

Rack travel in mm: 13.75

Tolerance mm : **←** 0.05

Del. quantity

cm3/1000 strokes : 250.0

Tolerance cm3/1000 strokes : +- 1.0	CONTROL LEVED
Check tolerance cm3/1000s. : + 4.0	CONTROL LEVER control lever
Spreed	position degree : 119.0 tolerance degree : + 4.0
Tolerance cm3/1000 strokes : 5.0	RATED SPEED
Check tolerance cm3/1000s. : 9.0	rack travel mm : 12.70 Rated speed rpm : 945 Tolerance 1/min : +- 5
Del. quantity cm3/1000 strokes : 23.0	rack travel mm : 4.00
Tolerance cm3/1000 strokes : + 3.0 Check tolerance	Rated speed rpm : 980 Tolerance 1/min : + 15
cm3/1000s. : +- 6.0 Spreed	rack travel mm : 0.85 Tolerance mm : + 0.55
Tolerance cm3/1000 strokes : 8.0	+ Rated speed rpm : 1130
Check tolerance cm3/1000s. : 12.0	LOW IDLE
(B) SETTING OF INJECTION PUMP	1
WITH GOVERNOR	- control lever
	position degree : 76.0
	tolerance degree : +- 4.0
GUIDE SLEEVE POSITION	Setting point w/out bumper spring
Rated speed rpm : 800	Rated speed rpm : 300 rack travel mm : 5.10
Rack travel in mm : 0.50 Tolerance mm : +- 0.20	Testing:
governor spring	Rated speed rpm : 300 rack travel mm : 5.60
pre-tension click setting x : 3.80	Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 2.00 Rated speed rpm : 350
	Tolerance 1/min : + 30
Rated speed rpm : 750 Aneroid pressure	I
hPa : -	TORQUE CONTROL
Del. quantity cm3/1000 strokes : 250.0	† Dimension a mm : 3.90
Tolerance	+ Rated speed rpm : 900
cm3/1000 strokes : +- 1.0	+ rack travel mm : 13.75 + Tolerance mm : + 0.05
Check tolerance cm3/1000s. : +- 4.0	T local affice limit : T 0.03
Spreed	Rated speed rpm : 450
Tolerance cm3/1000 strokes : 5.0	+ rack travel mm : 13.75 + Tolerance mm : + 0.05
Check tolerance	+
cm3/1000s. : 9.0	+ Rated speed rpm : 280 + rack travel mm : 15.20

Tolerance mm : +- 0.30

BREAKAWAY

Rack travel in mm: 12.70
Rated speed rpm: 945
Tolerance 1/min: +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100

LOW IDLE

Del. quantity
cm3/1000 strokes : 23.0
Tolerance
cm3/1000 strokes : + 3.0
Check tolerance
cm3/1000s. : + 6.0
Spreed
Tolerance
cm3/1000 strokes : 8.0
Check tolerance
cm3/1000 strokes : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 03.04.96 Edition Test oil : ISO 4113

Combination No. : 0 402 046 878

Injection pump

Pump designation : PES6P120A720RS3370 EP type number : 0 412 026 790

Governor

Governer design. : RQV300...1100PA1284K

Governer no. : 0 421 815 517

Cust. part No. :

Customer-spec, information

Customer : IVECO-FRANCE : 8360.46.4106 Motor

: 176.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 2 417 413 034

Inlet press. bar : 2.5

Overflow quantity

min. L/h : 160 Tolerance L/h : + 20.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

: 208.5 Tolerance bar : **←** 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm 4.15 : +- 0.05 Tolerance mm Check

: + 0.10tolerance mm

Rack travel in mm: 13.50 Tolerance mm : +- 0.50

: 1-5-3-6-2-Firing order

: 4

: 0-60-120-180-240 Phasing

: -300

Tolerance : +- 0.30

Check

tolerance *NW : +- 0.50

Start of delivery mark

Check

tolerance *NW : +- 0.40

: 1 Barrel no.

BASIC SETTING

Rated speed rpm : 1100

		A
Rack travel in mm	: 13.80	+ guide sleeve + travel mm : 13.50
Tolerance mm	: +- 0.05	Tolerance mm : +- 0.50
TOCC. GITTOC THAT		Tocci ditte illin
Del. quantity		
cm3/1000 strokes	: 173.0	+ GUIDE SLEEVE POSITION
Talananaa		Potent annual man 4725
Tolerance cm3/1000 strokes	: +- 1.0	+ Rated speed rpm : 1325
CIRCY TOOG SETONES	. , 1.0	Rack travel in mm: 10.00
Check tolerance		+ Tolerance mm : + 2.70
cm3/1000s.	: + 4.0	+
Compand		FULL LOAD DELTUEDY AT FULL LOAD OTOD
Spreed Tolerance		FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes	: 5.0	Rated speed rpm : 1100
		Aneroid pressure
Check tolerance	Verill degree from the filter of the region receipt and the region of the region flags again and refer the filter of the	+ hPa : 1200
cm3/1000s.	: 9.0	+ Del. quantity
Datud annul num	700	+ cm3/1000 strokes : 173.0
Rated speed rpm	; 300	+ Tolerance + cm3/1000 strokes : + 1.0
Rack travel in mm	: 7.90	Check tolerance
Tolerance mm	: +- 0.20	+ cm3/1000s. : + 4.0
Del. quantity		+ Spireed
cm3/1000 strokes	: 25.0	Tolerance
Tolerance		+ cm3/1000 strokes : 5.0
cm3/1000 strokes Check tolerance	: +- 3.0	+ Check tolerance + cm3/1000s. : 9.0
cm3/1000s.	: +- 6.0	T (1137 10003
Spreed		+
Tolerance		
cm3/1000 strokes	: 8.0	+ CONTROL LEVER
Check tolerance cm3/1000s.	: 12.0	t control lever
CIID/10003.	: 12.0	position degree : 116.0
		+ tolerance degree : + 4.0
(B) SETTING OF INJ	JECTION PUMP	+
WITH GOVERNOR		+ RATED SPEED
		track travel mm : 12.80
GUIDE SLEEVE TRAVE	=1	+ Rated speed rpm : 1145
warm whilethe IIIIth	ine Spire	+ Tolerance 1/min : + 5
Rated speed rpm	: 300	+
guide sleeve	2.40	+ rack travel mm : 4.00
travel mm	: 2.68 : +- 0.20	+ Rated speed rpm : 1265 + Tolerance 1/min : +- 15
Tolerance mm	: 0.20	Tolerance 1/min : +- 15
Rated speed rpm	: 1155	rack travel mm : 0.50
guide sleeve		+ Tolerance mm : +- 0.50
travel mm	: 9.00	+ Rated speed rpm : 1450
Tolerance mm	: + 0.15	†
Rated speed rpm	: 385	
guide sleeve	. 502	LOW IDLE
travel mm	: 3.01	+
Tolerance mm	: + 0.25	+
	4/50	+ control lever
Rated speed rpm	: 1450	position degree : 79.0
		+ tolerance degree : +- 4.0

Testing:

300 Rated speed rpm 6.80 rack travel mm Tolerance mm : + 0.10

300 Rated speed rpm

CRT mm min. : > 8.30

Rated speed rpm : 330

TORQUE CONTROL

1100 Rated speed rpm 13.80 rack travel mm : + 0.05Tolerance mm

800 Rated speed rpm : 13.95 rack travel mm : +- 0.15 Tolerance mm

Rated speed rpm 650 rack travel mm 13.50 : + - 0.15Tolerance mm

Rated speed rpm 400 rack travel mm 13.00 Tolerance mm : + 0.20

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 800 1200 Pressure hPa rack travel mm 13.95 Tolerance mm : + 0.15

MEASUREMENT

Pressure hPa 800 Rated speed rpm 10.95 rack travel mm : + 0.20Tolerance mm

Rated speed rpm 800

Pressure hPa 550 12.90 rack travel mm Tolerance mm : +- 0.20

285 Pressure hPa 11.55 rack travel mm : +- 0.05 Tolerance mm

START CUT-OUT

Rated speed rpm : > 180 Rated speed rpm 220 ; <

Check

speed 1/min : > 160

Check

speed 1/min ; < 240

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

1200 hPa Rated speed rpm 800 Del. quantity cm3/1000 strokes :

187.0

Tolerance cm3/1000 strokes : +-

Check tolerance cm3/1000s. : +-6.0

3.0

Aneroid pressure

1200 Rated speed rpm 650 Del. quantity

cm3/1000 strokes : 175.0

Tolerance

cm3/1000 strokes : +- 3.0Check tolerance

cm3/1000s. 6.0

Aneroid pressure

hPa. Rated speed rpm 500

Del. quantity cm3/1000 strokes : 84.0 Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +-

BREAKAWAY

Rack travel in mm: 12.80 Rated speed rpm : 1145 Tolerance 1/min : +-

STARTING FUEL DELIVERY

Rated speed rpm 100 rack travel mm 12.50 Tolerance mm : ← 0.30

Del. quantity cm3/1000 strokes	:	80.0
Tolerance cm3/1000 strokes	; +	15.0
Check tolerance cm3/1000s.	: +-	19.0

LOW IDLE

Rated speed rpm		300
rack travel mm	:	7.90 0.20
Tolerance mm Del. quantity	; +	0.20
cm3/1000 strokes	2	25.0
Tolerance	•	23.0
cm3/1000 strokes		3.0
Check tolerance		3.0
cm3/1000s.	• 4	6.0
Spreed	• '	0.0
Tolerance		
cm3/1000 strokes	•	8.0
Check tolerance	•	9.9
cm3/1000s.	•	12.0
GIRD7 100001	•	14.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 02.04.96 Test oil : ISO 4113

Combination No. : 0 402 046 879

Injection pump

Pump designation : PES6P120A320RS3284B

EP type number : 0 412 026 795

Governor

Governer design. : RQ275/1050PA999-3B

Governer no. : 0 421 801 809

Cust. part No. : 5119B____

Customer-spec. information

Customer : RENAULT V.I. Motor : MIDR 062045_I/3B

Power KW : 173.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 2 417 413 071

Inlet press. bar : 2.5

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 bar Tolerance bar

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x Length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : + 0.05Tolerance mm

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 : +- 1.50 Tolerance mm

Firing order

Phasing : 0-60-120-180-240

: -300

: 1-5- 3- 6- 2-

Tolerance : +- 0.30

Check

: **←** 0.50 tolerance *NW

Start of delivery mark

Barrel no. : 1

BASIC SETTING

700 Rated speed rpm :

11.55 Rack travel in mm : : +- 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 165.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 4.0

		+
Spreed		
Tolerance	5.0	+ GUIDE SLEEVE POSITION
cm3/1000 strokes :	5.0	Rated speed rpm : 600
Check tolerance		+
cm3/1000s. :	9.0	+ Rack travel in mm: 20.00
Datasi amasai ama	275	+ Tolerance mm : + 0.80
Rated speed rpm :	613	
Rack travel in mm :	-6.40	FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance mm	+ 0.20	TODE COMO DECEMBENT MI TODE COMO OTO
Del. quantity		+ Rated speed rpm : 700
cm3/1000 strokes :	18.0	+ Aneroid pressure
Tolerance		+ hPa : 1000
	+- 2.0	+ Del. quantity
Check tolerance		+ cm3/1000 strokes : 165.0
cm3/1000s. :	+- 5.0	+ Tolerance
Spreed		+ cm3/1000 strokes : +- 1.0
Tolerance	۰.۵	+ Check tolerance + cm3/1000s. : +- 4.0
cm3/1000 strokes : Check tolerance	8.0	+ cm3/1000s. : +- 4.0 + Spreed
cm3/1000s.	12.0	+ Tolerance
Cm57 (0005	12.0	+ cm3/1000 strokes : 5.0
		Check tolerance
(B) SETTING OF INJECT	CTION PUMP	+ cm3/1000s. : 9.0
WITH GOVERNOR		
		+
GUIDE SLEEVE TRAVEL		+ CONTROL LEVER
Rated speed rpm :	275	T control lever
guide sleeve	213	position degree : 270.0
travel mm :	1.30	tolerance degree : + 4.0
	+ 0.20	1
		+ RATED SPEED
Rated speed rpm :	1141	+
guide sleeve		+ rack travel mm : -1.00
travel mm :	6.40	+ Rated speed rpm : 1122
Tolerance mm :	+- 0.15	+ Tolerance 1/min : + 8
Dada al anazard arez	1050	†
Rated speed rpm :	1050	rack travel mm : -7.50
guide sleeve travel mm :	6.00	Rated speed rpm : 1225 Tolerance 1/min : + 15
	+ 0.10	T roterance minima : 1-2 13
Ocerance min	0.10	+ rack travel mm : -11.00
Rated speed rpm :	369	+ Tolerance mm : + 0.55
guide sleeve		+ Rated speed rpm : 1350
travel mm :	3.61	+
Tolerance mm :	← 0.10	+
Rated speed rpm :	490	+ LOW IDLE
guide sleeve	4.00	†
travel mm :	6.00	†
Tolerance mm :	+ 0.10	t control lever
Dated speed	1340	<pre>position degree : 252.0 tolerance degree : + 4.0</pre>
Rated speed rpm : guide sleeve	1340	T coterance degree : - 4.0
travel mm :	11.50	Testing:
Tolerance mm :	+ 0.50	1
TOTAL GIRES INTO	0.50	ı

Rated speed rpm : 500 Pressure hPa : 1000 REASUREMENT Pressure hPa :	Dated aread now	. 27c	1
Tolerance mm			1 Amenoid pressure
### Rated speed rpm : 1050 ### Del. quantity ### Company : 338 Commany : 400			
Del. quantity Del. quantit	TOTCI GITOC TIME		
Nated speed rpm 338 cm3/1000 strokes 163.0 Tolerance 1/min + 20 cm3/1000 strokes + 3.0 check tolerance cm3/1000s. + 6.0 check tolerance c	rack travel mm	: -9.50	→ Del. quantity
Tolerance 1/min : + 20	Rated speed rpm	: 338	+ cm3/1000 strokes : 163.0
Check tolerance Cm3/1000s. Cm3/100s. Cm3/100s. Cm3/100s. Cm3/100s. Cm3/100s. Cm3	Tolerance 1/min	: +- 20	+ Tolerance
CRT mm max.			
Aneroid pressure Aneroid pre	Rated speed rpm	: 200	
Aneroid pressure hPa : - Rated speed rpm : 500	AD#	5.00	+ cm3/1000S. : + 6.0
hPa	CKI mm max.	: < -5.00	Annual name
Rated speed rpm : 500 Del. quantity Compared to the pressure hPa 280 Colerance mm : + 0.10 Colerance mm : + 0.20 Colerance cm3/1000 strokes : 18.0 Colerance cm3/1000 strokes : + 2.0 Colerance cm3/1000 strokes : + 0.0 Colerance cm3/10000 strokes : + 0.0 Colerance cm3/1000 strokes : + 0.0 Colerance cm3/			
Del. quantity cm3/1000 strokes : 108.0 Tolerance	TORQUE CONTROL		
Casted speed rpm : 700	1011902 001111102		
Tolerance mm : 1050	Rated speed rpm	: 700	+ cm3/1000 strokes : 108.0
Check tolerance Cm3/1000s. : + 4.0			+ Tolerance
Check tolerance cm3/1000s. : + 4.0	Rated speed rpm	: 1050	
NEROID/ALTITUDE OMPENSATOR TEST BREAKAWAY	Tolerance mm	: ← 0.10	
Rack travel in mm : -1.00			+ cm3/1000s. : +- 4.0
Rack travel in mm : -1.00	ANDOTO /ALTTUSE		 †
Rack travel in mm : -1.00 Rated speed rpm : 500 Pressure hPa : 1000 REASUREMENT Pressure hPa :			I RREAKAWAY
Rated speed rpm : 500 Pressure hPa : 1000 REASUREMENT Pressure hPa :	COURTINOVIOR (CO.)		T DICENTARY I
Rated speed rpm : 500 Pressure hPa : 1000 REASUREMENT Pressure hPa :			1
Rated speed rpm : 500 Pressure hPa : 1000 REASUREMENT Pressure hPa :	SETTING		+ Rack travel in mm : -1.00
Tolerance 1/min : + 8 Tolerance 1/min : + 5.0 To			+ Rated speed rpm : 1122
STARTING FUEL DELIVERY STARTING FUEL DELIVERY	Rated speed rpm	: 500	
STARTING FUEL DELIVERY Stated speed rpm : 500	Pressure hPa	: 1000	+
STARTING FUEL DELIVERY Stated speed rpm : 500	MEASUREMENT		<u> </u>
Rated speed rpm : 500	INTOVINEI IEIT		↓ STARTING FUEL DELIVERY
Rated speed rpm : 500 rack travel mm : -1.35 rolerance mm : + 0.10 ressure hPa : 280 rack travel mm : -0.20 ressure hPa : 200 rack travel mm : -1.05 rolerance mm : + 0.05 ressure hPa : 200 rack travel mm : -1.05 rolerance mm : + 0.20 ressure hPa : 200 rack travel mm : -1.05 rolerance mm : + 0.20 ressure hPa : 200 rack travel mm : -1.05 rolerance mm : + 0.20 ressure hPa : 200 ressure hPa : 280 ressure hPa : 250 ressure h	Pressure hPa	: -	+
Del. quantity Cm3/1000 strokes 160.0 Tolerance mm + 0.10 Tolerance cm3/1000 strokes + 15.0 Check tolerance cm3/1000 strokes + 15.0 Check tolerance cm3/1000s. + 19.0 Check travel mm + 10.0 Check tra		: 500	
cm3/1000 strokes : 160.0 Tolerance cm3/1000 strokes : 160.0 Tolerance cm3/1000 strokes : +- 15.0 check tolerance cm3/1000s. cm3/1000	rack travel mm	: -1.35	+ Del. quantity
cm3/1000 strokes : + 15.0 check tolerance cm3/1000s. : + 19.0 cm3/1000s. cm3/1000s. : + 19.0 cm3/1	Tolerance mm	: ← 0.10	
Check tolerance cm3/1000s. : + 19.0 cm3/1000s.			
cm3/1000S. : + 19.0 cm3/100OS. cm3/100OS. : + 19.0 cm3/100OS. cm3/100OS. : + 19.0 cm3/100OS. cm3/10OS.	Rated speed rpm	: 500	
Tack travel mm	Danasana be	. 300	
Tolerance mm			† cm3/!UUU3. ; † 19.U
Tressure hPa			I
LOW IDLE	IOCEI ALICE IIIII	. ' 0.20	\mathbf{I}
LOW IDLE	Pressure hPa	: 200	
Rated speed rpm : 275 rack travel mm : -6.40 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 18.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000 strokes : 8.0 Check tolerance Cm3/1000 strokes : 8.0 Check tolerance Cm3/1000 strokes : 8.0 Check tolerance Check to	rack travel mm		+ LOW IDLE
rack travel mm : -6.40 TART CUT-OUT ated speed rpm : > 100 ated speed rpm : < 195 heck peed 1/min : > 80 heck peed 1/min : < 215 rack travel mm : -6.40 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 18.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance	olerance mm		+
TART CUT-OUT ated speed rpm :> 100 ated speed rpm :< 195 heck peed 1/min :> 80 heck peed 1/min :< 215 Tolerance mm :+ 0.20 Del. quantity cm3/1000 strokes : 18.0 Tolerance cm3/1000 strokes :+ 2.0 Check tolerance cm3/1000s. :+ 5.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance			, ,
Del. quantity cm3/1000 strokes : 18.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000 strokes : 8.0 Check tolerance			
ated speed rpm : > 100 ated speed rpm : < 195 heck peed 1/min : > 80 heck peed 1/min : < 215	START CUT-OUT		
ated speed rpm : < 195 heck peed 1/min : > 80 heck peed 1/min : < 215		A00	
cm3/1000 strokes : +- 2.0 Check tolerance cm3/1000s. : +- 5.0 cm3/1000s. : +- 5.0 cm3/1000s. : +- 5.0 cm3/1000 strokes : 8.0 check tolerance cm3/1000 strokes : 4- 2.0 cm3/1000s.			
heck peed 1/min :> 80	Rated speed rpm	: < 195	
peed 1/min :> 80	·hoal.		
heck		• > 80	
peed 1/min : < 215 + Tolerance 		00	
cm3/1000 strokes : 8.0 Check tolerance		• < 215	
	heen mun	• > 612	
ALT DELLYER COMPRESSION TO LIND THREE TO A 17 - 13	HEL DELIVERY CHA	RACTERISTICS	+ cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 02,04,96 : ISO 4113

Combination No. : 0 402 640 844

Injection pump

Pump designation : PE12P120A520LS7879 EP type number : 0 412 620 841

Governor

Governer design. : RQV350...1200PA1167

Governer no. : 0 421 814 107

Cust. part No. : 0250742402

Customer-spec. information Customer : MTU

Motor : 12V183-03 : 845.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.1,3.2

Test oil inlet

temp. °C Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

min. l/h : 150 Tolerance l/h : +- 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 bar : +- 1.5 Tolerance bar

Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter : 3.0

x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.05 : +- 0.05 Tolerance mm

Check

tolerance mm : ← 0.10

Rack travel in mm: 10.50 : +- 0.50 Tolerance mm

Firing order : 12-1-5-9-8

: - 3- 4- 11- 10 : - 2- 6- 7

: 0-45-60-105-120 Phasing

> : -165-180-225-240 : -285-300-345

Tolerance : + 0.30

Check

tolerance °NW : + 0.50

Start of delivery mark

Barrel no. : 12

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm : 12.80 Tolerance mm : +- 0.10

Del. quantity

cm3/1000 strokes : 310.0

	+	Tolerance mm : +- 0.25
Tolerance	<u> </u>	2.1
cm3/1000 strokes	: ← 1.0 +	Rated speed rpm : 620
Check tolerance		guide sleeve travel mm : 3.89
cm3/1000s.	: +- 4.0	Tolerance mm : + 0.25
Spreed	+	Rated speed rpm : 1366
Tolerance	+	guide sleeve
cm3/1000 strokes	: 8.0	travel mm : 10.00 Tolerance mm : +- 0.25
Check tolerance		Total artice limit . The U.E.S
cm3/1000s.	: 12.0	Rated speed rpm : 1470
	+	guide sleeve
Rated speed rpm	: 350 +	travel mm : 11.50
Rack travel in mm	1: 4.00	Tolerance mm : +- 0.50
Tolerance mm	+ 0.30	
Del. quantity	1	GUIDE SLEEVE POSITION
cm3/1000 strokes	: 20.0	
Tolerance	+	Rated speed rpm : 1310
cm3/1000 strokes	: +- 3.0	Pools though in man a 12 00
Check tolerance cm3/1000s.	: +- 6.0	Rack travel in mm : 12.00 Tolerance mm : +- 1.30
Spreed	1	rocerative min
Tolerance	+	
cm3/1000 strokes	: 10.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance	15.0	Data di anno di 1900
cm3/1000s.	: 15.0	Rated speed rpm : 1200 Aneroid pressure
	Ī	hPa : 2000
(B) SETTING OF IN	JECTION PUMP	Del. quantity
WITH GOVERNOR	+	cm3/1000 strokes : 310.0
	+	Tolerance
GUIDE SLEEVE TRAV	<u> </u>	cm3/1000 strokes : +- 1.0 Check tolerance
GOIDE SPECAE IKWA	Ī	cm3/1000s. : +- 4.0
Rated speed rpm	: 350	Spreed
guide sleeve	+	Tolerance
travel mm	: 1.53 +	cm3/1000 strokes : 8.0
Tolerance mm	: ← 0.15 †	Check tolerance cm3/1000S. : 12.0
Rated speed rpm	: 1281	(1137 10003.
guide sleeve	1	
travel mm	: 8.53	
Tolerance mm	: +- 0.20	CONTROL LEVER
Rated speed rpm	: 990	control lever
guide sleeve	. ,,,,	position degree : 122.0
travel mm	: 5.68	tolerance degree : +- 4.0
Tolerance mm	: +- 0.25	
Made at an and muse	. (20	RATED SPEED
Rated speed rpm guide sleeve	: 420	rack travel mm : 11.80
travel mm	: 2.86	Rated speed rpm : 1245
Tolerance mm	÷ 0.25	Tolerance 1/min : + 5
	1	
Rated speed rpm	(
and do along	: 470	rack travel mm : 4.00
guide sleeve	+	Rated speed rpm : 1330
guide sleeve travel mm	: 470 : 3.42	

D06

rack travel mm	: 0.75	† Tolerance mm	: +- 0.05
Tolerance mm Rated speed rpm	: +- 0.75	Pressure hPa rack travel mm Tolerance mm	: 250 : 6.80 : + 0.10
FOM IDTE		Pressure hPa rack travel mm Tolerance mm	
control lever position degree tolerance degree	: 68.0 : +- 4.0	Pressure hPa rack travel mm Tolerance mm	
Testing:		START CUT-OUT	
Rated speed rpm rack travel mm Tolerance mm	: 4.00	Rated speed rpm Rated speed rpm	: > 240 : < 270
Rated speed rpm CRT mm min.	: 250 : > 6.30	Check speed 1/min Check	: > 220
Rated speed rpm		speed 1/min	: < 290
nated speed i pin	730	FUEL DELIVERY CHA	PACTERISTICS
TORQUE CONTROL		+	MACIENTED TOO
Rated speed rpm rack travel mm Tolerance mm	: 1200 : 12.80 : + 0.10	Aneroid pressure hPa Rated speed rpm Del. quantity	: 900 : 600
Rated speed rpm rack travel mm Tolerance mm	: 600 : 9.70	+ cm3/1000 strokes + Tolerance + cm3/1000 strokes + Check tolerance - cm3/1000s.	: + 1.5
ANEROID/ALTITUDE COMPENSATOR TEST		Aneroid pressure hPa Rated speed rpm	: - : 500
SETTING		+ Del. quantity + cm3/1000 strokes + Tolerance	: 121.0
Rated speed rpm Pressure hPa	: 600 : 2000	cm3/1000 strokes	: + 1.0
rack travel mm Tolerance mm	: 12.70 : + 0.10	cm3/1000s. Spreed	: +- 4.0
MEASUREMENT		Tolerance cm3/1000 strokes	: 10.0
Pressure hPa Rated speed rpm rack travel mm	: – : 600 : 5.90	Check tolerance cm3/1000s.	: 15.0
Tolerance mm	: +- 0.15	BREAKAWAY	
Rated speed rpm	: 600	Rack travel in mm	• 11 80
Pressure hPa rack travel mm	: 600 : 9.20	Rated speed rpm Tolerance 1/min	: 1245

STARTING FUEL DELIVERY

Rated speed rpm 100

Del. quantity cm3/1000 strokes : 360.0

Tolerance

cm3/1000 strokes : + 15.0

Check tolerance

cm3/1000s. : + 19.0

LOW IDLE

350 Rated speed rpm 4.00 rack travel mm : +- 0.30 Tolerance mm Del. quantity cm3/1000 strokes : 20.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes : 10.0 Check tolerance cm3/1000s. 15.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 29.03.96 Test oil : ISO 4113

Combination No. : 0 402 648 790

Injection pump

Pump designation : PE8P130A920/5LS7867

EP type number : 0 412 638 805

Governor

Governer design. : RQV400...1000PA1285

Governer no. : 0 421 814 177

Cust. part No. :

Customer-spec. information

Customer : IVECO-FIAT Motor : 8285.22.014

Power KW : 277.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C : 43
Tolerance °C : +- 2.5

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.15 Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 10.00 Tolerance mm : + 0.50

Firing order : 1-8-4-3-6 :-5-7-2

Phasing : 0-45-90-135-180 : -225-270-315

Tolerance : +- 0.30

Check

tolerance °NW : +- 0.50

BASIC SETTING

Rated speed rpm : 550

Rack travel in mm : 10.25

Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 188.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance cm3/1000s. : +- 4.0

Spreed

Tolerance

cm3/1000 strokes : 8.0

009

	1		
Check tolerance	. 12.0	SIN LOAD DELTHERY AT THE	LOAD STOP
cm3/1000s.	: 12.0	FULL LOAD DELIVERY AT FULL	LOAD STOR
Rated speed rpm	: 400	Rated speed rpm : 550 Aneroid pressure	
Rack travel in m		hPa : 900	
Tolerance mm	: +- 0.20	Del. quantity	^
Del. quantity cm3/1000 strokes	: 23.0	cm3/1000 strokes : 188 Tolerance	.U
Tolerance	. 23.0		.0
cm3/1000 strokes	: + 3.0 +	Check tolerance	
Check tolerance cm3/1000s.	: +- 7.0	cm3/1000s. : +- 4 Spreed	.0
Spreed	7.0	Tolerance	
Tolerance	4		.0
cm3/1000 strokes	: 6.0	Check tolerance	_
Check tolerance	. 10.0	cm3/1000s. : 12	.0
cm3/1000s.	: 10.0		
(B) SETTING OF I	NJECTION PUMP	CONTROL LEVER	
WITH GOVERNOR	4		
	+	control lever	•
GUIDE SLEEVE TRAY	/EI	position degree : 114 tolerance degree : +- 4	• -
OUTNE SCEENE LKW	YEL	toterance degree : +- 4	.0
Rated speed rpm	: 400	RATED SPEED	
guide sleeve	. 100	made denoted the control of	2 0
travel mm Tolerance mm	: 1.90 + : + 0.20 +	rack travel mm : 9.7 Rated speed rpm : 1070	
TOTAL CE INS	1	Tolerance 1/min : +-	5
Rated speed rpm	: 1080		_
guide sleeve	+	rack travel mm : 4.0	
travel mm Tolerance mm	: 8.57 : + 0.15	Rated speed rpm : 1155 Tolerance 1/min : +-	15
ग्राचः वाग्यः शा	7	TOCCIONEC ITMINI	, ,
Rated speed rpm	: 764	rack travel mm : 0.	
guide sleeve	+	Tolerance mm : +- 0.1	50
travel mm Tolerance mm	: 5.74 : + 0.25	Rated speed rpm : 1250	
TOTAL STREET	1		
Rated speed rpm	: 520		
guide sleeve	. 344	LOW IDLE	
travel mm Tolerance mm	: 3.66 : + 0.25		
roter arite mm	Ţ	control lever	
Rated speed rpm	: 1320	position degree : 65	
guide sleeve	11 50	tolerance degree : +- 4	.0
travel mm Tolerance mm	: 11.50 + : + 0.50 +	Testing:	
TOTE CALLS IN	· ·- 0.50	resemy.	
		Rated speed rpm : 400	
GUIDE SLEEVE POSI	TION +	rack travel mm : 4.3 Tolerance mm : + 0.3	SD 10
Rated speed rpm	: 1220	roterance mm : - U.	U
waten sheen thin	Ţ	Rated speed rpm : 300	
Rack travel in mm			_
Tolerance mm	. 270	CRT mm min. : > 5.8	2O

: 430	+ Check tolerance + cm3/1000s. : + 6.0
	Aneroid pressure
	+ hPa : -
: 550	+ Rated speed rpm : 500
: 10.25	+ Del. quantity
: 0.05	+ cm3/1000 strokes : 157.0
0.50	+ Tolerance
\$ 95U	+ cm3/1000 strokes : + 1.0
	+ Check tolerance + cm3/1000s. : +- 4.0
. += 0.10	T (115) 10005 +- 4.0
	BREAKAWAY
	Rack travel in mm: 9.20
	+ Rated speed rpm : 1070
	† Tolerance 1/min : +- 5
: 500	†
	†
	STARTING FUEL DELIVERY
. 1 - 0.05	T STARTING FOEL DEELVERT
	Rated speed rpm : 100
	+ Del. quantity
-	+ cm3/1000 strokes : 150.0
	+ Tolerance
	+ cm3/1000 strokes : + 15.0
: + 0.10	Check tolerance
: 500	+ cm3/1000s. : + 19.0
770	†
	†
	LOW IDLE
. +- 0.10	I LOW LOCK
: 355	Rated speed rpm : 400
: 10.05	rack travel mm : 4.30
: + 0.05	+ Tolerance mm : + 0.20
	+ Del. quantity
	+ cm3/1000 strokes : 23.0
	† Tolerance
. > 400	+ cm3/1000 strokes : + 3.0
: > 100	+ Check tolerance + cm3/1000s. : +- 7.0
	+ Spreed
: > 80	Tolerance
	cm3/1000 strokes : 6.0
	+ Check tolerance
RACTERISTICS	cm3/1000s. : 10.0
	I
: 900	+
950	+
	1
: 185.0	+
	: 550 : 10.25 : + 0.05 : 950 : 10.20 : + 0.10 : 500 : 900 : 10.25 : + 0.05 : 500 : 9.40 : + 0.10 : 500 : 9.40 : + 0.10 : 500 : 330 : 9.60 : + 0.10 : 355 : 10.05 : + 0.05 : > 100 : 380 RACTERISTICS : 900

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 29.03.96 Test oil : ISO 4113

Combination No. : 0 402 795 204

Injection pump

Pump designation: PES5H120/720/3LS1004

: -1

EP type number : 0 412 725 204

Governor

Governer design. : RE33

Governer no. : 0 421 890 364

Cust. part No. : 51.111103-7538

Customer-spec. information Customer : MAN

Motor : D 2865 LF 09

Power KW : 250.0

TEST BENCH REQUIREMENTS

Inlet line : 4-unten

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 2 417 413 082

Inlet press. bar : 3.0 Tolerance bar : + 0.1

Overflow quantity

min. l/h : 165 Tolerance l/h : + 10.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

Pump-specific values in Section (B) must be observed!

(A) INJECTION PUMP SETTINGS

No basic setting.

Setting of constant delivery

under Section C.

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 10.00 Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 0.50

Firing order : 1-3-5-4-2

Phasing : 0-72-144-216-288

Tolerance : + 0.30

Check

tolerance °NW : + 0.50

Start of delivery blocking

Barrel no. : 5

(B) POSITIONER TESTING Warm-up time: 3 minutes at n=600 min-1, Uact = 2.5 V

TESTING & SETTING RACK TRAVEL SENSOR	+ Test with control rod + in stop position
POSITION	Engine speed min-1: 60
Engine speed min-1: 0	Amplitude V 1 4
Lighte speed with it.	+ Amplitude V : 1.4 + Tolerance V : +/- 0.6
Setting point	+ Check
(P, R and H pump)	+ tolerance V : +/- 1.20
	+
Uact V : 3.100	+ Engine speed min-1: 600
CRT mm : 13.00	+ Difference
Tolerance mm : +/- 0.05	+ Amplitude to
Check tolerance mm : +/- 0.10	Amplitude V : max.1.4
toterance min : +/- 0.10	I
Check value	
(P, R and H pump)	(c) INJECTION PUMP WITH POSITIONER
	+
4 700	+ TEST POINT V1
Uact V : 1.700 CRT mm : 6.15	Potentian and an an and an an and an
CRT mm : 6.15 Tolerance mm : +/- 0.25	+ Rated speed rpm : 750 + Uact V : 3.350
Check	Prestroke solenoid
tolerance mm : +/- 0.30	Stroke mm : 10.00
SOCI GIAGO IMI	Del. quantity
	+ cm3/1000 strokes : 332.0
Setting point	+ Tolerance
(M pump)	+ cm3/1000 strokes : +- 1.0
	+ Check tolerance
Uact V : 3.100	+ cm3/1000s. : + 4.0
CRT mm : 12.50 Tolerance mm : +/- 0.05	+ Spreed
Tolerance mm : +/- 0.05 Check	+ Tolerance + cm3/1000 strokes : 5.0
tolerance mm : +/- 0.10	Check tolerance
total allocations and a state of the state o	+ cm3/1000s. : 9.0
Check value	+
(M pump)	+ FUEL DELIVERY CHARACTERISTICS
4 700	750
Uact V : 1.700	Rated speed rpm : 750
CRT mm : 5.50 Tolerance mm : +/- 0.25	+ Uact V : 1.450 + Prestroke solenoid
Tolerance mm : +/- 0.25 Check	Stroke mm : 10.00
tolerance mm : +/- 0.30	Del. quantity
	- cm3/1000 strokes : 72.0
Stop position	+ Tolerance
	+ cm3/1000 strokes : +- 4.0
Uact V : Value with	+ Check tolerance + cm3/1000s. : +- 8.0
deenergised adjusting magnet and control rod in	+ cm3/1000s. : +- 8.0 + Spreed
stop position.	Tolerance
CRT mm : 0.75	+ cm3/1000 strokes : 4.0
Tolerance mm : +/- 0.25	- Check tolerance
Check	+ cm3/1000s. : 8.0
tolerance mm : +/- 0.35	+
	+ Rated speed rpm : 1000
ENCINE_COEEN CENCOO	+ Uact V : 3.290 + Prestroke solenoid
ENGINE-SPEED SENSOR (All P and R pumps not	+ Stroke mm : 8.00
H and M pumps)	Del. quantity
ti did ii pampos	cm3/1000 strokes : 311.0
	•
D14	

Tolerance	
cm3/1000 strokes	: +- 4.0
Check tolerance cm3/1000s.	: +- 8.0
41107 (0000)	
Rated speed rpm	: 500
Uact V	: 2.900
Prestroke solenoi	
Stroke mm	: 9.20
Del. quantity	. 707.0
cm3/1000 strokes	: 303.0
Tolerance cm3/1000 strokes	: +- 5.0
Check tolerance	. +- 5.0
cm3/1000s.	: +- 9.0
	• ,,,,
Rated speed rpm	: 500
Uact V	: 2.100
Prestroke solenoi	
Stroke mm	: 6.20
Del. quantity	. 472.0
cm3/1000 strokes	: 172.0
Tolerance cm3/1000 strokes	: +- 4.0
Check tolerance	: +- 4.0
cm3/1000s.	: +- 8.0
(1107 100001	
TEST POINT L1	
Rated speed rpm	: 300
Uact V	1.500
Tolerance Volt	: + 0.060
Check tolerance	
Volt	: +- 0.080
Prestroke solenoi	
Stroke mm	: 7.20
Del. quantity	. 72.0
cm3/1000 strokes	: 32.0
Tolerance cm3/1000 strokes	: +- 3.0
Spreed	. , 3.0
Tolerance	
cm3/1000 strokes	: +- 3.0
STARTING FUEL DEL	IVERY
Rated speed rpm	: 100
Uact V	: 2.450
Prestroke solenoid	a • 7.00
Stroke mm	: 7.00
Del. quantity cm3/1000 strokes	: 178.0
Tolerance	. 170.0
cm3/1000 strokes	: +- 10.0
Check tolerance	
cm3/1000s.	: + 14.0
P	Ciania, akasa
End of test specif	rication sneet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 29.03.96 Test oil : ISO 4113

Combination No. : 0 402 795 205

Injection pump

Pump designation : PES5H120/720/3LS1002

: -2

: 0 412 725 205 EP type number

Governor

Governer design. : RE33

: 0 421 890 362 Governer no.

Cust. part No. : 51.111103-7540

Customer-spec. information

Customer : MAN

: D 2865 LUH 07 Motor

: 228.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 4-unten

Test oil inlet

temp. °C 40 Tolerance °C

: 2 417 413 082 Overflow valve

Inlet press. bar : Tolerance bar 0.1

Overflow quantity

165 min. L/h Tolerance L/h : +- 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

208.5 Tolerance bar : **←** 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

3.0 x inside diameter: 600 x length mm :

REMARKS

Pump-specific values in Section (B) must be observed!

(A) INJECTION PUMP SETTINGS

No basic setting.

Setting of constant delivery

under Section C.

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : +- 1.0

: 10.00 Prestroke mm : + 0.05 Tolerance mm Check

: + 0.10tolerance mm

Rack travel in mm: 10.50 : +- 0.50 Tolerance mm

: 1-3-5-4-2 Firing order

: 0-72-144-216-288 Phasing

: +- 0.30 Tolerance

Check

tolerance °NW : +- 0.50

Start of delivery blocking

Barrel no. 5

(B) POSITIONER TESTING Warm-up time: 3 minutes at n=600 min-1, Uact = 2.5 V

TESTING & SETTING RACK TRAVEL SENSOR POSITION	Test with control rod in stop position
Engine speed min-1: 0	Engine speed min-1: 60 Amplitude V: 1.4 Tolerance V: +/- 0.6
Setting point (P, R and H pump)	+ Check + tolerance V : +/- 1.20
Uact V : 3.100	Engine enged minute 600
CRT mm : 13.00	+ Engine speed min-1: 600 + Difference
Tolerance mm : +/- 0.05	+ Amplitude to
Check	+ Amplitude V : max.1.4
tolerance mm : +/- 0.10	1
Check value (P, R and H pump)	(C) INJECTION PUMP WITH POSITIONER
	+
Uact V : 1.700	TEST POINT V1
CRT mm : 6.15	+ Rated speed rpm : 750
Tolerance mm : +/- 0.25	+ Uact V : 3.350
Check	+ Prestroke solenoid
tolerance mm : +/- 0.30	+ Stroke mm : 10.00
	+ Del. quantity + cm3/1000 strokes : 332.0
Setting point	Tolerance 332.0
(Qmuq M)	+ cm3/1000 strokes : + 1.0
	- Check tolerance
Uact V : 3.100	+ cm3/1000s. : +- 4.0
CRT mm : 12.50	+ Spreed
Tolerance mm : +/- 0.05	+ Tolerance
Check tolerance mm : +/- 0.10	+ cm3/1000 strokes : 5.0
tolerance mm : +/- 0.10	+ Check tolerance + cm3/1000s. : 9.0
Check value	T (1107 10003
(qmuq M)	+ FUEL DELIVERY CHARACTERISTICS
	+
Uact V : 1.700	+ Rated speed rpm : 750
CRT mm : 5.50	+ Uact V : 1.450
Tolerance mm : +/- 0.25 Check	+ Prestroke solenoid + Stroke mm : 10.00
tolerance mm : +/- 0.30	+ Del. quantity
toter di lee likij	+ cm3/1000 strokes : 72.0
Stop position	+ Tolerance
•	+ cm3/1000 strokes : + 4.0
Uact V : Value with	+ Check tolerance
deenergised adjusting magnet	+ cm3/1000s. + 8.0
and control rod in	+ Spreed
stop position. CRT mm : 0.75	+ Tolerance + cm3/1000 strokes : 4.0
Tolerance mm : +/- 0.25	Check tolerance
Check	- cm3/1000s. : 8.0
tolerance mm : +/- 0.35	+
	Rated speed rpm : 1000
	+ Uact V : 3.290
ENGINE-SPEED SENSOR	+ Prestroke solenoid
(All P and R pumps not	+ Stroke mm : 8.00
H and M pumps)	+ Del. quantity + cm3/1000 strokes : 311.0
	T CIIDA LONG SCLOKES : 311.0

Tolerance	
cm3/1000 strokes	: ← 4.0
Check tolerance	
cm3/1000s.	: ← / 8.0
Rated speed rpm	: 500
Jact V	: 2.900
Prestroke solenoi	
Stroke mm	: 9.20
Del. quantity	: 303.0
cm3/1000 strokes Folerance	; 303.0
cm3/1000 strokes	: +- 5.0
Check tolerance	
cm3/1000s.	: +- 9.0
Dadad	
Rated speed rpm Jact V	: 500 : 2.100
Prestroke solenoi	
Stroke mm	: 6.20
Del. quantity	
cm3/1000 strokes	: 172.0
Tolerance	
cm3/1000 strokes	: +- 4.0
Check tolerance cm3/1000s.	: +- 8.0
	0.0
TEST POINT L1	
lated speed rpm	: 300
Jact V	: 1.500
olerance Volt	: +- 0.060
heck tolerance	
/olt	: +- 0.080
restroke solenoi	
troke mm	: 7.20
el. quantity	. 72.0
m3/1000 strokes olerance	: 32.0
m3/1000 strokes	: + 3.0
Spreed	
olerance	
m3/1000 strokes	: +- 3.0
TARTING FUEL DEL	IVERY
ated speed rpm	: 100_
lact V	: 2.450
restroke solenoi	
troke mm	: 7.00
el. quantity	: 178.0
m3/1000 strokes olerance	: 170.0
m3/1000 strokes	: +- 10.0
THE TOUCH SET ONCO	
heck tolerance	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 29.03.96 Test oil : ISO 4113

Combination No. : 0 402 795 803

Injection pump

Pump designation : PESSP120A720/3LS7418

EP type number : 0 412 725 824

Governor

Governer design. : RE30

Governer no. : 0 421 890 039

Cust. part No. : 51.11103-7511

Customer-spec. information

Customer : MAN

Motor : D 2865 LF 24

Power KW : 213.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 2.0
Tolerance bar : + 0.1

Tolerance l/h: +- 10.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 173.5 Tolerance bar : +- 1.5

Test lines : 1 680 750 089

019

Outside diameter : 8.0

x inside diameter: 3.0

x Length mm : 600

REMARKS

Pump-specific values in Section (B)

must be observed!

(A) INJECTION PUMP SETTINGS

No basic setting.

Setting of constant delivery

under Section C.

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.25

Prestroke mm : 5.25
Tolerance mm : + 0.05
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Check

tolerance mm : +- 0.10

Rack travel in mm: 13.00

Rack travel in mm: 13.00 Tolerance mm: + 0.50

Tolerance mm : +- 0.50

Firing order : 1-3-5-4-2

Phasing : 0-72-144-216-288

Tolerance : + 0.30

Check

tolerance *NW : + 0.50

Start of delivery blocking

Barrel no. : 5

(B) POSITIONER TESTING Warm-up time: 3 minutes at n=600 min-1, Uact = 2.5 VTESTING & SETTING RACK TRAVEL SENSOR **POSITION** Engine speed min-1: Setting point (P, R and H pump) Uact V 3.100 CRT mm 13.00 Tolerance mm : +/- 0.05 Check tolerance mm : +/- 0.10 Check value (P, R and H pump) Uact V 1.700 6.15 CRT mm : +/- 0.25 Tolerance mm Check tolerance mm : +/- 0.30 Setting point (qmuq M) 3.100 Uact V CRT mm 12.50 Tolerance mm : +/- 0.05 Check : +/- 0.10 tolerance mm Check value (amua M) 1,700 Uact V 5.50 CRT mm : +/- 0.25 Tolerance mm Check : +/- 0.30tolerance mm Stop position : Value with Uact V deenergised adjusting magnet and control rod in stop position. 0.75 CRT mm : +/- 0.25 Tolerance mm

: +/- 0.35

ENGINE-SPEED SENSOR (All P and R pumps not H and M pumps) Test with control rod

in stop position

Engine speed min-1: 60 Amplitude V 1.4 : +/- 0.6 Tolerance V Check

tolerance V : +/- 1.20

Engine speed min-1: 600

Difference Amplitude to

Amplitude V : max.1.4

(C) INJECTION PUMP WITH POSITIONER

TEST POINT V1

Rated speed rpm 750 3.100 Uact V Del. quantity cm3/1000 strokes : 271.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. 9.0

FUEL DELIVERY CHARACTERISTICS

1000

Rated speed rpm Uact V 3,120 Del. quantity cm3/1000 strokes : 252.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. : +-6.0

Rated speed rpm 750 : Uact V 1,470 Del. quantity cm3/1000 strokes : 83.0 Tolerance cm3/1000 strokes : +-5.0

Check tolerance cm3/1000s.: +-9.0 Spreed

020

Check

tolerance mm

Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 8.0 : 12.0
Rated speed rpm Uact V Del. quantity cm3/1000 strokes	: 500 : 1.950 : 176.0
Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	
TEST POINT L1	
Rated speed rpm Uact V Tolerance Volt Check tolerance	: 325 : 1.470 : + 0.060
Volt Del. quantity cm3/1000 strokes Tolerance	: + 0.080 : 40.0
cm3/1000 strokes Spreed Tolerance	: + 3.0
cm3/1000 strokes	: +- 3.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 29,03,96 : ISO 4113

Combination No. : 0 402 796 039

Injection pump

Pump designation : PES6H11D/32DRS13-1

EP type number : 0 412 716 004

Governor

Governer design. : RE36

Governer no.

: 0 421 890 363

Cust. part No. : 51.11103-7529

Customer-spec. information

Customer : MAN

Motor

: D0826 LF13/LFL09 : 191.0

Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3-unten

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 2 417 413 082

Inlet press. bar : Tolerance bar : + 0.1

Overflow quantity

min. l/h : 165 Tolerance l/h : + 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 bar Tolerance bar : +- 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0

x length min : 600

REMARKS

Pump-specific values in Section (B) must be observed!

(A) INJECTION PUMP SETTINGS

No basic setting.

Setting of constant delivery under Section C.

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm 8.00 : **←** 0.50 Tolerance mm

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50

: +- 0.50 Tolerance mm

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

Tolerance : + - 0.30

Check

tolerance °NW : +- 0.50

Start of delivery blocking

Barrel no. : 1

(B) POSITIONER TESTING Warm-up time: 3 minutes at n=600 min-1, Uact = 2.5 V

	1 1 1
TESTING & SETTING RACK TRAVEL SENSOR	+ Test with control rod + in stop position
POSITION	T III stop position
. 40212011	+ Engine speed min-1: 60
Engine speed min-1: 0	Amplitude V : 1.4 Tolerance V : +/- 0.6
Setting point	Check
(P, R and H pump)	+ tolerance V : +/- 1.20
Uact V : 3.100	+ Engine speed min-1: 600
CRT mm : 13.00	+ Difference
Tolerance mm : +/- 0.05	+ Amplitude to
Check	+ Amplitude V : max.1.4
tolerance mm : +/- 0.10	+
Check value	<u> </u>
(P, R and H pump)	(C) INJECTION PUMP WITH POSITIONER
(1) 1) miles (1) bounday	-
	+ TEST POINT V1
Uact V : 1.700 CRT mm : 6.15	+
CRT mm : 6.15	+ Rated speed rpm : 850
Tolerance mm : +/- 0.25	+ Uact V : 2.490
Check tolerance mm : +/- 0.30	+ Prestroke solenoid + Stroke mm : 11.10
coterance min : 47-0.50	+ Del. quantity
	+ cm3/1000 strokes : 231.0
Setting point	Tolerance
(M pump)	+ cm3/1000 strokes : +- 1.0
	+ Check tolerance
Uact V : 3.100	+ cm3/1000s. : +- 4.0
CRT mm : 12.50	+ Spreed
Tolerance mm : +/- 0.05	+ Tolerance + cm3/1000 strokes : 5.0
Check tolerance mm : +/- 0.10	+ cm3/1000 strokes : 5.0 + Check tolerance
toterdrice man . +/ - 5.10	- cm3/1000s. : 9.0
Check value	+
(M pump)	+ FUEL DELIVERY CHARACTERISTICS
	+
Uact V : 1.700	+ Rated speed rpm : 800
CRT mm : 5.50	Uact V : 1.580
Tolerance mm : +/- 0.25	+ Prestroke solenoid + Stroke mm : 7.70
Check tolerance mm : +/- 0.30	+ Del. quantity
totel diffe film	- cm3/1000 strokes : 92.0
Stop position	+ Tolerance
	+ cm3/1000 strokes : + 4.0
Uact V : Value with	+ Check tolerance
deenergised adjusting magnet	+ cm3/1000s. $+$ 8.0
and control rod in	+ Spreed
stop position. CRT mm : 0.75	+ Tolerance + cm3/1000 strokes : 4.0
Tolerance mm : +/- 0.25	+ Check tolerance
Check	- cm3/1000s. : 7.0
tolerance mm : +/- 0.35	+
	Rated speed rpm : 1150
	+ Uact V : 2.440
ENGINE-SPEED SENSOR	Prestroke solenoid
(ALL P and R pumps not	+ Stroke mm : 9.30
H and M pumps)	+ Del. quantity + cm3/1000 strokes : 206.0
	ין בווטי זעטט אנו טאפא . בטטיני

Tolerance cm3/1000 strokes	: +- 6.0
Check tolerance cm3/1000s.	: +- 10.0
Rated speed rpm	: 600
Uact V Prestroke solenoi	: 2.220
Stroke mm	: 12.10
Del. quantity cm3/1000 strokes	: 211.0
Tolerance cm3/1000 strokes	: + 6.0
Check tolerance cm3/1000s.	: +- 10.0
Rated speed rpm Uact V	: 500 : 1.750
Prestroke solenoi Stroke mm	d : 9.80
Del. quantity	
cm3/1000 strokes Tolerance	
cm3/1000 strokes Check tolerance	: + 5.0
cm3/1000s.	: +- 9.0
TEST POINT L1	
Rated speed rpm	: 300
Uact V Tolerance Volt	: 1.650 : + 0.060
Check tolerance	
Volt Prestroke solenoi	: ← 0.080 d
Stroke mm Del. quantity	: 11.10
cm3/1000 strokes	: 35.0
Tolerance cm3/1000 strokes	: +- 3.0
Spreed Tolerance	
cm3/1000 strokes	: +- 3.0
STARTING FUEL DEL	IVERY
Rated speed rpm	: 100
Uact V	: 2.050
Prestroke solenoi Stroke mm	d : 5.50
Del. quantity cm3/1000 strokes	: 82.0
Tolerance	
cm3/1000 strokes Check tolerance	: +- 8.0
cm3/1000s.	: + 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 29.03.96 : ISO 4113

Combination No. : 0 402 796 040

Injection bumb

Pump designation : PES6H120/320RS10-1

EP type number : 0 412 726 009

Governor

Governer design. : RE36

Governer no.

: 0 421 890 363

Cust. part No. : 51.11103-7537

Customer-spec. information

Customer : MAN

: D 0826 LUH 12

Motor Power KW

: 162.0

TEST BENCH REQUIREMENTS

Inlet line : 3-unten

Test oil inlet

temp. °C

Tolerance °C

2.0

Overflow valve : 2 417 413 082

Inlet press. bar :

Tolerance bar

: + 0.1

Overflow quantity

min. L/h

: 160

Tolerance l/h

: +- 10.0

Test nozzle holde

assembly

: 1 688 901 105

Opening pressure

bar

208.5

Tolerance bar

: +- 1.5

Test lines : 1 680 750 089

Outside diameter :

8.0

x inside diameter:

3.0

x length mm :

600

REMARKS

Pump-specific values in Section (B)

must be observed!

(A) INJECTION PUMP SETTINGS

No basic setting.

Setting of constant delivery

under Section C.

BEGINNING OF DELIVERY

Test pressure bar :

Tolerance bar : +- 1.0

Prestroke mm 8.00

Tolerance mm

: +- 0.05

Check

: ← 0.10 tolerance mm

Rack travel in mm: 10.50

Tolerance mm

: +- 0.50

Firing order

: 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance

: +- 0.30

Check

tolerance "NW

: +- 0.50

Start of delivery blocking

Barrel no. :

(B) POSITIONER TESTING Warm-up time: 3 minutes at n=600 min-1, Uact = 2.5 V

TESTING & SETTING RACK TRAVEL SENSOR	+ Test with control rod
POSITION	in stop position
1 40 4 1 4 4 1	+ Engine speed min-1: 60
Engine speed min-1: 0	Amplitude V : 1.4 Tolerance V : +/- 0.6
	+ Tolerance V : +/- 0.6
Setting point	+ Check
(P, R and H pump)	+ tolerance V : +/- 1.20
Uact V : 3.100	Engine speed min-1: 600
CRT mm : 13.00	Difference
Tolerance mm : +/- 0.05	+ Amplitude to
Check	+ Amplitude V : max.1.4
tolerance mm : +/- 0.10	+
Shock value	†
Check value (P, R and H pump)	(C) INJECTION PUMP WITH POSITIONER
(1) It did it policy	T (C) INDECITOR FOR WITH FOSTITOREK
	TEST POINT V1
Uact V : 1.700	+
CRT mm : 6.15	+ Rated speed rpm : 800
Tolerance mm : +/- 0.25	Uact V
Check tolerance mm : +/- 0.30	+ Prestroke solenoid + Stroke mm : 13.20
Coterance limit . 17 - 0.30	Del. quantity
	- cm3/1000 strokes : 222.0
Setting point	+ Tolerance
(M pump)	+ cm3/1000 strokes : + 1.0
7.400	Check tolerance
Uact V : 3.100 CRT mm : 12.50	+ cm3/1000s. : + 4.0 + Spreed
Tolerance mm : +/- 0.05	+ Tolerance
Check	- cm3/1000 strokes : 5.0
tolerance mm : +/- 0.10	- Check tolerance
	+ cm3/1000s. : 9.0
Check value	
(qmuq M)	† FUEL DELIVERY CHARACTERISTICS
Uact V : 1.700	Rated speed rpm : 800
CRT mm : 5.50	- Uact V : 1.400
Tolerance mm : +/- 0.25	+ Prestroke solenoid
Check	+ Stroke mm : 12.00
tolerance mm : +/- 0.30	+ Del. quantity
Stop position	t cm3/1000 strokes : 60.0 Tolerance
stop position	+ cm3/1000 strokes : + 4.0
Uact V : Value with	- Check tolerance
deenergised adjusting magnet	+ cm3/1000s. : + 8.0
and control rod in	Spreed
stop position.	Tolerance
CRT mm : 0.75 Tolerance mm : +/- 0.25	+ cm3/1000 strokes : 4.0 + Check tolerance
Tolerance mm : +/- 0.25 Check	+ cm3/1000s. : 7.0
tolerance mm : +/- 0.35	+
	Rated speed rpm : 1200
	+ Uact V : 2.540
ENGINE-SPEED SENSOR	Prestroke solenoid
(All P and R pumps not H and M pumps)	+ Stroke mm : 10.30 + Del. quantity
of died is britished	+ cm3/1000 strokes : 209.0
	1

cm3/1000 strokes	: 6.0
theck tolerance m3/1000s.	: +- 10.0
Rated speed rpm Uact V	: 500 : 1.930
Prestroke solenoi	
Stroke mm	: 10.40
Del. quantity cm3/1000 strokes	: 146.0
Tolerance	
cm3/1000 strokes Check tolerance	: +- 4.0
cm3/1000s.	: ← 8.0
TEST POINT L1	
Rated speed rpm	: 300
Uact V	: 1.440
Tolerance Volt	: + 0.060
Check tolerance Volt	: +- 0.080
Prestroke solenoid	d
Stroke mm	: 8.80
Del. quantity cm3/1000 strokes	: 17.0
Tolerance	
cm3/1000 strokes Spreed	: +- 3.0
Tolerance	
cm3/1000 strokes	: +- 3.0
STARTING FUEL DELI	IVERY
Dated amond non	: 100
Rated speed rpm Uact V	: 2.100
Prestroke solenoid	
Stroke mm Del. quantity	: 7.20
cm3/1000 strokes	: 104.0
Tolerance cm3/1000 strokes	: +- 6.0
Check tolerance	
cm3/1000s.	: +- 10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 29.03.96 Edition : ISO 4113 Test oil

Combination No. : 0 402 796 204

Injection pump

Pump designation : PES6H120/720/3LS1005

: -1

EP type number : 0 412 726 204

Governor

Governer design. : RE33

: 0 421 890 364 Governer nc.

Cust. part No. : 51.111103-7539

Customer-spec. information

Customer : MAN

: D 2866 LF 16 Motor

Power KW : 294.0

TEST BENCH REQUIREMENTS

Inlet line : 4-unten

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 2 417 413 082

Inlet press. bar : 3.0 : + 0.1 Tolerance bar

Overflow quantity

min. l/h : 135 Tolerance l/h : + 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 bar Tolerance bar : +- 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

Pump-specific values in Section (B) must be observed!

(A) INJECTION PUMP SETTINGS

No basic setting.

Setting of constant delivery

under Section C.

BEGINNING OF DELIVERY

Test pressure bar : 26.0 : +- 1.0 Tolerance bar

Prestroke mm : 10.00 : **←** 0.05 Tolerance mm

Check

: + - 0.10tolerance mm

Rack travel in mm: 10.50 : + 0.50 Tolerance mm

: 6-2-4-1-5-: 3 Firing order

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.30

Check

tolerance *NW : +- 0.50

Start of delivery blocking

Barrel no. :

(B) POSITIONER TESTING Warm-up time: 3 minutes at n=600 min-1, Uact = 2.5 V

TECTIAL C CETTIAL DACK TRAVEL CENTOD	+ Test with control rod
TESTING & SETTING RACK TRAVEL SENSOR POSITION	† in stop position
LOSTITON	Engine speed min-1: 60
Engine speed min-1: 0	Amplitude V : 1.4
Engine opeca um m	+ Tolerance V : +/- 0.6
Setting point	+ Check
(P, R and H pump)	+ tolerance V : +/- 1.20
	+
Uact V : 3.100	+ Engine speed min-1: 600
CRT mm : 13.00	+ Difference
Tolerance mm : +/- 0.05	+ Amplitude to
Check	+ Amplitude V : max.1.4
tolerance mm : +/- 0.10	Engine speed min-1: 60 Amplitude V : 1.4 Tolerance V : +/- 0.6 Check tolerance V : +/- 1.20 Engine speed min-1: 600 Difference Amplitude to Amplitude V : max.1.4 (C) INJECTION PUMP WITH POSITIONER TEST POINT V1 Rated speed rpm : 750 Uact V : 3.350 Prestroke solenoid Stroke mm : 10.00 Del. quantity cm3/1000 strokes : 332.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000s. : 9.0 FUEL DELIVERY CHARACTERISTICS
Check value	
(P, R and H pump)	(c) INJECTION PUMP WITH POSITIONER
Cry it did it painby	T (C) INDECTION FOR WITH FOSTITONER
	TEST POINT V1
Uact V : 1.700	
CRT mm : 6.15	+ Rated speed rpm : 750
Tolerance mm : +/- 0.25	+ Uact V : 3.350
Check	+ Prestroke solenoid
tolerance mm : +/- 0.30	+ Stroke mm : 10.00
	+ Del. quantity
Cabbles maint	+ cm3/1000 strokes : 332.0
Setting point (M pump)	+ Tolerance + cm3/1000 strokes : + 1.0
(1) pumps	+ Check tolerance
Uact V : 3.100	+ cm3/1000s. : +- 4.0
CRT mm : 12.50	+ Spreed
Toterance mm : +/- 0.05	+ Tolerance
Check	- cm3/1000 strokes : 5.0
tolerance mm : +/- 0.10	+ Check tolerance
	+ cm3/1000s. : 9.0
Check value	+
(M pump)	+ FUEL DELIVERY CHARACTERISTICS
16-th N	The total annual man at 750
Uact V : 1.700 CRT mm : 5.50	+ Rated speed rpm : 750 + Uact V : 1.450
CRT mm : 5.50 Tolerance mm : +/- 0.25	+ Uact V : 1.450 + Prestroke solenoid
Check	+ Stroke mm : 10.00
tolerance mm : +/- 0.30	+ Del. quantity
	+ cm3/1000 strokes : 74.0
Stop position	+ Tolerance
	+ cm3/1000 strokes : +- 4.0
Uact V : Value with	+ Check tolerance
deenergised adjusting magnet	+ cm3/1000s. : + 8.0
and control rod in	+ Spreed
stop position. CRT mm : 0.75	+ Tolerance + cm3/1000 strokes : 4.0
	Check tolerance
Tolerance mm : +/- 0.25 Check	+ cm3/1000s. : 8.0
tolerance mm : +/- 0.35	1
toto, area mar ('/ Great	Rated speed rpm : 1000
	+ Uact V : 3.290
ENGINE-SPEED SENSOR	+ Prestroke solenoid
(All P and R pumps not	+ Stroke mm : 8.00
H and M pumps)	+ Del. quantity
	+ cm3/1000 strokes : 314.0

Rated speed rpm : 500 Uact V : 2.900 Prestroke solenoid Stroke mm : 9.20 Del. quantity cm3/1000 strokes : 307.0 Tolerance cm3/1000 strokes : + 5.0 Check tolerance cm3/1000s. : + 9.0 Rated speed rpm : 500 Uact V : 2.100 Prestroke solenoid Stroke mm : 6.20 Del. quantity cm3/1000 strokes : 176.0 Tolerance cm3/1000 strokes : + 4.0 Check tolerance cm3/1000s. : + 8.0 TEST POINT L1 Rated speed rpm : 300 Uact V : 1.500 Tolerance Volt : + 0.060 Check tolerance Volt : + 0.080 Prestroke solenoid Stroke mm : 7.20 Del. quantity cm3/1000 strokes : + 3.0 Stroke mm : 7.20 Del. quantity cm3/1000 strokes : 36.0 Tolerance cm3/1000 strokes : + 3.0 Stroke mm : 7.20	/1000 strokes : ck_tolerance	•		
Uact V : 2.900 Prestroke solenoid Stroke mm : 9.20 Del. quantity cm3/1000 strokes : 307.0 Tolerance cm3/1000 strokes : + 5.0 Check tolerance cm3/1000s. : + 9.0 Rated speed rpm : 500 Uact V : 2.100 Prestroke solenoid Stroke mm : 6.20 Del. quantity cm3/1000 strokes : 176.0 Tolerance cm3/1000 strokes : + 4.0 Check tolerance cm3/1000s. : + 8.0 TEST POINT L1 Rated speed rpm : 300 Uact V : 1.500 Tolerance Volt : + 0.060 Check tolerance Volt : + 0.080 Prestroke solenoid Stroke mm : 7.20 Del. quantity cm3/1000 strokes : + 3.0 Tolerance cm3/1000 strokes : 36.0 Tolerance cm3/1000 strokes : 36.0 Tolerance cm3/1000 strokes : + 3.0 STARTING FUEL DELIVERY Rated speed rpm : 100	/1000s. :	+	8.0	
Prestroke solenoid Stroke mm : 9.20 Del. quantity cm3/1000 strokes : 307.0 Tolerance cm3/1000 strokes : + 5.0 Check tolerance cm3/1000s. : + 9.0 Rated speed rpm : 500 Uact V : 2.100 Prestroke solenoid Stroke mm : 6.20 Del. quantity cm3/1000 strokes : 176.0 Tolerance cm3/1000 strokes : + 4.0 Check tolerance cm3/1000s. : + 8.0 TEST POINT L1 Rated speed rpm : 300 Uact V : 1.500 Tolerance Volt : + 0.060 Check tolerance Volt : + 0.080 Prestroke solenoid Stroke mm : 7.20 Del. quantity cm3/1000 strokes : + 3.0 Stroke mm : 7.20 Del. quantity cm3/1000 strokes : + 3.0 Stroke mm : 7.20 Del. quantity cm3/1000 strokes : 36.0 Tolerance cm3/1000 strokes : + 3.0 STARTING FUEL DELIVERY Rated speed rpm : 100				
Stroke mm			2.900	
Del. quantity cm3/1000 strokes : 307.0 Tolerance cm3/1000 strokes : + 5.0 Check tolerance cm3/1000s. : + 9.0 Rated speed rpm : 500 Uact V : 2.100 Prestroke solenoid Stroke mm : 6.20 Del. quantity cm3/1000 strokes : 176.0 Tolerance cm3/1000 strokes : + 4.0 Check tolerance cm3/1000s. : + 8.0 TEST POINT L1 Rated speed rpm : 300 Uact V : 1.500 Tolerance Volt : + 0.060 Check tolerance Volt : + 0.080 Prestroke solenoid Stroke mm : 7.20 Del. quantity cm3/1000 strokes : + 3.0 Tolerance cm3/1000 strokes : 36.0 Tolerance cm3/1000 strokes : 36.0 Tolerance cm3/1000 strokes : 36.0 Tolerance cm3/1000 strokes : - 3.0 STARTING FUEL DELIVERY Rated speed rpm : 100			0.20	
cm3/1000 strokes : 307.0 Tolerance cm3/1000 strokes : + 5.0 Check tolerance cm3/1000s. : + 9.0 Rated speed rpm : 500 Uact V : 2.100 Prestroke solenoid Stroke mm : 6.20 Del. quantity cm3/1000 strokes : 176.0 Tolerance cm3/1000 strokes : + 4.0 Check tolerance cm3/1000s. : + 8.0 TEST POINT L1 Rated speed rpm : 300 Uact V : 1.500 Tolerance Volt : + 0.060 Check tolerance Volt : + 0.060 Check tolerance Volt : + 0.080 Prestroke solenoid Stroke mm : 7.20 Del. quantity cm3/1000 strokes : 36.0 Tolerance cm3/1000 strokes : 36.0 Tolerance cm3/1000 strokes : + 3.0 Spreed Tolerance cm3/1000 strokes : + 3.0 Spreed Tolerance cm3/1000 strokes : + 3.0 STARTING FUEL DELIVERY Rated speed rpm : 100			7.20	
Tolerance cm3/1000 strokes : + 5.0 Check tolerance cm3/1000s. : + 9.0 Rated speed rpm : 500 Uact V : 2.100 Prestroke solenoid Stroke mm : 6.20 Del. quantity cm3/1000 strokes : 176.0 Tolerance cm3/1000 strokes : + 4.0 Check tolerance cm3/1000s. : + 8.0 TEST POINT L1 Rated speed rpm : 300 Uact V : 1.500 Tolerance Volt : + 0.060 Check tolerance Volt : + 0.080 Prestroke solenoid Stroke mm : 7.20 Del. quantity cm3/1000 strokes : + 3.0 Stroke mm : 7.20 Del. quantity cm3/1000 strokes : + 3.0 Stroke mm : 7.20 Stroke mm : 7.20 Del. quantity cm3/1000 strokes : 36.0 Tolerance cm3/1000 strokes : + 3.0 STARTING FUEL DELIVERY Rated speed rpm : 100			307 n	
Cm3/1000 strokes : + 5.0 Check tolerance Cm3/1000s. : + 9.0 Rated speed rpm : 500 Uact V : 2.100 Prestroke solenoid Stroke mm : 6.20 Del. quantity Cm3/1000 strokes : 176.0 Tolerance Cm3/1000 strokes : + 4.0 Check tolerance Cm3/1000s. : + 8.0 TEST POINT L1 Rated speed rpm : 300 Jact V : 1.500 Tolerance Volt : + 0.060 Check tolerance Volt : + 0.080 Prestroke solenoid Stroke mm : 7.20 Del. quantity Cm3/1000 strokes : + 3.0 Spreed Tolerance Cm3/1000 strokes : + 3.0			55, .0	
Rated speed rpm : 500 Prestroke solenoid Stroke mm : 6.20 Del. quantity cm3/1000 strokes : 176.0 Tolerance cm3/1000 strokes : + 4.0 Check tolerance cm3/1000s. : + 8.0 TEST POINT L1 Rated speed rpm : 300 Jact V : 1.500 Tolerance Volt : + 0.060 Check tolerance volt : + 0.080 Prestroke solenoid Stroke mm : 7.20 Del. quantity cm3/1000 strokes : 36.0 Tolerance cm3/1000 strokes : + 3.0 STARTING FUEL DELIVERY Rated speed rpm : 100		+-	5.0	
Rated speed rpm : 500 Jact V : 2.100 Prestroke solenoid Stroke mm : 6.20 Del. quantity cm3/1000 strokes : 176.0 Tolerance cm3/1000 strokes : + 4.0 Check tolerance cm3/1000s. : + 8.0 TEST POINT L1 Rated speed rpm : 300 Jact V : 1.500 Tolerance Volt : + 0.060 Check tolerance //olt : + 0.080 Prestroke solenoid Stroke mm : 7.20 Del. quantity cm3/1000 strokes : 36.0 Tolerance cm3/1000 strokes : + 3.0 Spreed Tolerance cm3/1000 strokes : + 3.0 Strarting Fuel Delivery Rated speed rpm : 100				
### Prestroke solenoid Prestroke solenoid Stroke mm	/1000s. :	+-	9.0	
Stroke solenoid Stroke mm 6.20 Stroke mm 6.20 Stroke mm 6.20 Strokes 176.0 Stolerance 176.0 Stolerance 176.0 Stolerance 176.0 Stolerance 176.0 176	ed sneed rom		500	
Prestroke solenoid Stroke mm : 6.20 Del. quantity Cm3/1000 strokes : 176.0 Folerance Cm3/1000 strokes : + 4.0 Check tolerance Cm3/1000s. : + 8.0 FEST POINT L1 Rated speed rpm : 300 Jact V : 1.500 Folerance Volt : + 0.060 Check tolerance /olt : + 0.080 Prestroke solenoid Stroke mm : 7.20 Del. quantity Cm3/1000 strokes : 36.0 Folerance Cm3/1000 strokes : + 3.0 Stroke mm : 3.0 STARTING FUEL DELIVERY Rated speed rpm : 100				
Stroke mm : 6.20 Del. quantity Cm3/1000 strokes : 176.0 Folerance Cm3/1000 strokes : + 4.0 Check tolerance Cm3/1000s. : + 8.0 FEST POINT L1 Rated speed rpm : 300 Jact V : 1.500 Folerance Volt : + 0.060 Check tolerance /olt : + 0.080 Prestroke solenoid Stroke mm : 7.20 Del. quantity Cm3/1000 strokes : 36.0 Folerance Cm3/1000 strokes : + 3.0				
### 176.0 ### 176.0	oke mm :		6.20	
Tolerance cm3/1000 strokes : + 4.0 Check tolerance cm3/1000s. : + 8.0 TEST POINT L1 Rated speed rpm : 300 Jact V : 1.500 Tolerance Volt : + 0.060 Check tolerance /olt : + 0.080 Prestroke solenoid Stroke mm : 7.20 Del. quantity cm3/1000 strokes : 36.0 Tolerance cm3/1000 strokes : + 3.0 Spreed Tolerance cm3/1000 strokes : + 3.0 STARTING FUEL DELIVERY Rated speed rpm : 100				
cm3/1000 strokes : + 4.0 check tolerance cm3/1000s. : + 8.0 cm3/1000s. : + 8.0 cm3/1000s. : + 8.0 cm3/1000s. : + 8.0 cm3/1000 cm : 1.500 cm : 1.500 cm : 1.500 cm : + 0.060 cm : + 0.060 cm : + 0.080 cm : + 0.080 cm : + 0.080 cm : 7.20 cm			176.0	
Check tolerance cm3/1000s. : + 8.0 FEST POINT L1 Rated speed rpm : 300 Jact V : 1.500 Folerance Volt : + 0.060 Check tolerance Folt : + 0.080 Frestroke solenoid Stroke mm : 7.20 Fole quantity Fm3/1000 strokes : 36.0 Folerance Fole m3/1000 strokes : + 3.0 Foreed Folerance Fole m3/1000 strokes : + 3.0 FTARTING FUEL DELIVERY Foliated speed rpm : 100		1.	/ 0	
rm3/1000s. : + 8.0 rest POINT L1 Rated speed rpm : 300 Plact V : 1.500 Folerance Volt : + 0.060 Check tolerance Polt : + 0.080 Prestroke solenoid Stroke mm : 7.20 Pel. quantity Prestroke : 36.0 Folerance Proposed Folerance Proposed Folerance Folera			4.0	
Rated speed rpm : 300 Ract V : 1.500 Folerance Volt : + 0.060 Rheck tolerance Folt : + 0.080 Rrestroke solenoid Foltroke mm : 7.20 Folel quantity Folderance Fold		+-	8.0	
ated speed rpm : 300 act V : 1.500 olerance Volt : + 0.060 heck tolerance olt : + 0.080 restroke solenoid troke mm : 7.20 el. quantity m3/1000 strokes : 36.0 olerance m3/1000 strokes : + 3.0 preed olerance m3/1000 strokes : + 3.0 TARTING FUEL DELIVERY ated speed rpm : 100				
act V : 1.500 olerance Volt : + 0.060 heck tolerance olt : + 0.080 restroke solenoid troke mm : 7.20 el. quantity m3/1000 strokes : 36.0 olerance m3/1000 strokes : + 3.0 preed olerance m3/1000 strokes : + 3.0 TARTING FUEL DELIVERY ated speed rpm : 100	POINT LT			
act V : 1.500 olerance Volt : + 0.060 heck tolerance olt : + 0.080 restroke solenoid troke mm : 7.20 el. quantity m3/1000 strokes : 36.0 olerance m3/1000 strokes : + 3.0 oreed olerance m3/1000 strokes : + 3.0 TARTING FUEL DELIVERY ated speed rpm : 100	ed speed rpm :			
heck tolerance olt :+ 0.080 restroke solenoid troke mm : 7.20 el. quantity m3/1000 strokes : 36.0 olerance m3/1000 strokes :+ 3.0 oreed olerance m3/1000 strokes :+ 3.0 TARTING FUEL DELIVERY ated speed rpm : 100			1.500	
olt :+ 0.080 restroke solenoid troke mm : 7.20 el. quantity m3/1000 strokes : 36.0 olerance m3/1000 strokes :+ 3.0 preed olerance m3/1000 strokes :+ 3.0 TARTING FUEL DELIVERY ated speed rpm : 100		+-	0.060	
restroke solenoid troke mm : 7.20 el. quantity m3/1000 strokes : 36.0 olerance m3/1000 strokes : + 3.0 preed olerance m3/1000 strokes : + 3.0 TARTING FUEL DELIVERY ated speed rpm : 100			0 600	
troke mm : 7.20 el. quantity m3/1000 strokes : 36.0 olerance m3/1000 strokes : + 3.0 preed olerance m3/1000 strokes : + 3.0 TARTING FUEL DELIVERY ated speed rpm : 100		+-	บ.ยชย	
el. quantity m3/1000 strokes : 36.0 olerance m3/1000 strokes : + 3.0 preed olerance m3/1000 strokes : + 3.0 TARTING FUEL DELIVERY ated speed rpm : 100			7.20	
m3/1000 strokes : 36.0 olerance m3/1000 strokes : + 3.0 preed olerance m3/1000 strokes : + 3.0 TARTING FUEL DELIVERY ated speed rpm : 100			,	
olerance m3/1000 strokes : + 3.0 preed olerance m3/1000 strokes : + 3.0 TARTING FUEL DELIVERY ated speed rpm : 100	1000 strokes :		36.0	
preed olerance m3/1000 strokes : +- 3.0 TARTING FUEL DELIVERY ated speed rpm : 100	erance			
olerance m3/1000 strokes : +- 3.0 TARTING FUEL DELIVERY ated speed rpm : 100		+	3.0	
m3/1000 strokes : +- 3.0 TARTING FUEL DELIVERY ated speed rpm : 100				
TARTING FUEL DELIVERY ated speed rpm : 100		+-	3.0	
ated speed rpm : 100	,000 001 01100 1	-	J. J	
	TING FUEL DELIVE	RY		
	d speed rom .		100	
act V : 2.450			2.450	
restroke solenoid			_,	
troke mm : 7.00			7.00	
el. quantity	quantity			
m3/1000 strokes : 183.0			183.0	
olerance		1-	10.0	
m3/1000 strokes : +- 10.0 neck tolerance		T	10.0	
m3/1000s. : +- 14.0		+-	14.0	

E02

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 29.03.96 Edition : ISO 4113 Test oil

Combination No. : 0 402 796 205

Injection pump

Pump designation : PES6H120/720/3LS1006

: -1

EP type number : 0 412 726 205

Governor

Governer design. : RE33

: 0 421 890 365 Governer no.

Cust. part No. : 51.111103-7541

Customer-spec. information

Customer : MAN

: D 2866 LUH 21 Motor

Power KW : 257.0

TEST BENCH REQUIREMENTS

Inlet line : 4-unten

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 2 417 413 082

Inlet press. bar : 3.0 Tolerance bar : + 0.1

Overflow quantity

min. l/h : 135 Tolerance l/h : + 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 : + 1.5 Tolerance bar

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter : 3.0 x length mm : 600

REMARKS

Pump-specific values in Section (B) must be observed!

(A) INJECTION PUMP SETTINGS No basic setting. Setting of constant delivery under Section C.

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm : 10.00 Tolerance mm : + 0.05 Check

: +- 0.10 tolerance mm

Rack travel in mm : 10.50 Tolerance mm : + 0.50

Firing order : 6-2-4-1-5-: 3

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance °NW : + 0.50

Start of delivery blocking

Barrel no. : 6

(B) POSITIONER TESTING Warm-up time: 3 minutes at n=600 min-1, Uact = 2.5 V

TESTING & SETTING RACK TRAVEL SENSOR POSITION	Test with control rod in stop position
7 002 12014	+ Engine speed min-1: 60
Engine speed min-1: 0	+ Amplitude V : 1.4
	+ Amplitude V : 1.4 + Tolerance V : +/- 0.6
Setting point	+ Check
(P, R and H pump)	tolerance V : +/- 1.20
Unat V 2 400	Trains aread air 1. (00
Uact V : 3.100 CRT mm : 13.00	+ Engine speed min-1: 600 Difference
Tolerance mm : +/- 0.05	Amplitude to
Check	+ Amplitude V : max.1.4
tolerance mm : +/- 0.10	+
	+
Check value	(0) THE TOUR DIVING HET TOUR
(P, R and H pump)	(C) INJECTION PUMP WITH POSITIONER
	TEST POINT V1
Uact V : 1.700	T (ES) FOIM VI
CRT mm : 6.15	Rated speed rpm : 750
Tolerance mm : +/- 0.25	+ Uact V : 3,350
Check	+ Prestroke solenoid
tolerance mm : +/- 0.30	+ Stroke mm : 10.00
	+ Del. quantity
Cotting point	+ cm3/1000 strokes : 332.0 + Tolerance
Setting point (M pump)	+ cm3/1000 strokes : +- 1.0
Ca pampy	Check tolerance
Uact V : 3.100	+ cm3/1000s. : + 4.0
CRT mm : 12.50	+ Spreed
Tolerance mm : +/- 0.05	+ Tolerance
Check	+ cm3/1000 strokes : 5.0
tolerance mm : +/- 0.10	+ Check tolerance + cm3/1000s. : 9.0
Check value	t cm3/1000s. : 9.0
(M pump)	FUEL DELIVERY CHARACTERISTICS
C. Carelas	-
Uact V : 1.700	+ Rated speed rpm : 750
CRT mm : 5.50	+ Uact V : 1.450
Tolerance mm : +/- 0.25	+ Prestroke solenoid
Check tolerance mm : +/- 0.30	+ Stroke mm : 10.00
tolerance mm : +/- 0.30	<pre>Del. quantity cm3/1000 strokes : 74.0</pre>
Stop position	+ Tolerance
	+ cm3/1000 strokes : +- 4.0
Uact V : Value with	† Check tolerance
deenergised adjusting magnet	+ cm3/1000s. : + 8.0
and control rod in	+ Spreed
stop position. CRT mm : 0.75	+ Tolerance + cm3/1000 strokes : 4.0
CRT mm : 0.75 Tolerance mm : +/- 0.25	+ Check tolerance 4.0
Check	- cm3/1000s. : 8.0
tolerance mm : +/- 0.35	+
	Rated speed rpm : 1000
	+ Uact V : 3.290
ENGINE-SPEED SENSOR	+ Prestroke solenoid
(All P and R pumps not	+ Stroke mm : 8.00 + Del. quantity
H and M pumps)	+ cm3/1000 strokes : 314.0
	1 2110/1000 36/0/03 1 317/0

Tolerance cm3/1000 strokes	: +- 4.0	
Check tolerance cm3/1000s.	: +- 8.0	
Rated speed rpm Uact V	: 500 : 2.900	
Prestroke solenoi Stroke mm	id : 9.20	
Del. quantity cm3/1000 strokes	: 307.0	
Tolerance cm3/1000 strokes	: +- 5.0	
Check tolerance cm3/1000s.	: +- 9.0	
Rated speed rpm Uact V	: 500 : 2.100	
Prestroke solenoi Stroke mm	id : 6.20	
Del. quantity cm3/1000 strokes	: 176.0	
Tolerance cm3/1000 strokes Check tolerance	: +- 4.0	
cm3/1000s.	: +- 8.0	
TEST POINT L1		
Rated speed rpm Uact V Tolerance Volt Check tolerance	: 300 : 1.500 : + 0.060	
Volt Prestroke solenoi	: + 0.080	
Stroke mm Del. quantity	: 7.20	
cm3/1000 strokes Tolerance	: 36.0	
cm3/1000 strokes Spreed	: +- 3.0	
Tolerance cm3/1000 strokes	: +- 3.0	
STARTING FUEL DEL	IVERY	•
Rated speed rpm Uact V Prestroke solenoi	: 100 : 2.450	
Stroke mm Del. quantity	: 7.00	
cm3/1000 strokes	: 183.0	
Tolerance cm3/1000 strokes	: + 10.0	
Check tolerance cm3/1000s.	: +- 14.0	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 29,03,96 Edition Test oil : ISO 4113

Combination No. : 0 402 796 822

Injection pump

Pump designation : PES6P120A720/3LS7417

EP type number : 0 412 726 960

Governor

Governer design. : RE30

Governer no. : 0 421 890 039

Cust. part No. : 51.11103-7480

Customer-spec. information

Customer : MAN

Motor : D 2866 LOH 25

Power KW : 228.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

40 temp. °C Tolerance °C 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 2.0 Tolerance bar 0.1

Tolerance 1/h : +- 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

173.5 bar Tolerance bar 1.5

Test lines : 1 680 750 089

E06

Outside diameter : 8.0

x inside diameter: 3.0

600 x length mm

REMARKS

Pump-specific values in Section (B)

must be observed!

(A) INJECTION PUMP SETTINGS

No basic setting.

Setting of constant delivery

under Section C.

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +-

Prestroke mm : 5.45

Prestroke mm 5.45 : +-Tolerance mm 0.05 Tolerance mm : +- 0.05

Check

: + 0.10tolerance mm

Check

tolerance mm : + - 0.10

Rack travel in mm: 15.50

Rack travel in mm: 15.50

Tolerance mm : + 0.50 : + - 0.50Tolerance mm

: 6-2-4-1-5-: 3

Phasing : 0-60-120-180-240

: -300

: + - 0.30Tolerance

Check

Firing order

tolerance *NW : + 0.75

Start of delivery blocking

Barrel no.

(B) POSITIONER TE Warm-up time: 3 m n=600 min-1, Uact	inutes at
TESTING & SETTING POSITION	RACK TRAVEL SENSOR
Engine speed min-	1: 0
Setting point (P, R and H pump)	
Uact V CRT mm Tolerance mm Check tolerance mm	: 3.100 : 13.00 : +/- 0.05 : +/- 0.10
Check value (P, R and H pump)	
Uact V CRT mm Tolerance mm Check tolerance mm	: 1.700 : 6.15 : +/- 0.25 : +/- 0.30
Setting point (M pump)	
Uact V CRT mm Tolerance mm Check tolerance mm	: 3.100 : 12.50 : +/- 0.05 : +/- 0.10
Check value (M pump)	
Uact V CRT mm Tolerance mm Check tolerance mm	: 1.700 : 5.50 : +/- 0.25 : +/- 0.30
Stop position	
Uact V deener	: Value with rgised adjusting magnet and control rod in stop position.
CRT mm Tolerance mm Check	: 0.75 : +/- 0.25

ENGINE-SPEED SENSOR (All P and R pumps not H and M pumps)

Test with control rod in stop position

Engine speed min-1: 60
Amplitude V: 1.4
Tolerance V: +/- 0.6
Check
tolerance V: +/- 1.20

Engine speed min-1: 600

Difference Amplitude to

Amplitude V : max.1.4

(C) INJECTION PUMP WITH POSITIONER

TEST POINT V1

750 Rated speed rpm 3.100 Uact V Del. quantity cm3/1000 strokes : 271.0 Tolerance cm3/1000 strokes : +-1.0 Check tolerance cm3/1000s. 4.0 Spreed Tolerance 5.0 cm3/1000 strokes : Check tolerance 9.0 cm3/1000s.

FUEL DELIVERY CHARACTERISTICS

1000 Rated speed rpm 3.120 Uact V Del. quantity cm3/1000 strokes : 252.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. : +-6.0 750 Rated speed rpm Uact V 1.470 Del. quantity cm3/1000 strokes : 83.0 Tolerance

cm3/1000 strokes : +- 5.0 Check tolerance cm3/1000s. : +- 9.0

Spreed

E07

tolerance mm : ± -0.35

BOSCH INJ. PUMP TEST SPECIFICATIONS Note remarks Refer to Service Info for test and adjustment instructions. See microcard(s) W400/... Edition : 03,04,96 Test oil : ISO 4113 : 0 403 244 055 Combination No. Injection pump Pump designation : PES4MW100/320RS1521 : 0 413 204 020 EP type number Governor : RQV400...1200MW147 Governer design. : -1 : 0 420 083 336 Governer no. : 51.11103-7532 Cust. part No. Customer-spec. information Customer : MAN : D0824 LFL04 Motor Power KW : 81.0 TEST BENCH REQUIREMENTS Inlet line : 3.1 Test oil inlet temp. °C 40 Tolerance °C Overflow valve : 1 419 992 198 Inlet press. bar : 1.5 Test nozzle holde : 1 688 901 101 assembly Opening pressure 208.5 bar Tolerance bar : 1 680 750 008 Test lines

Outside diameter :

E09

8.0

x inside diameter: 2.0 600 x length mm : REMARKS (A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values _____ BEGINNING OF DELIVERY Test pressure bar : 31.0 Tolerance bar : +- 1.0 5.05 Prestroke mm : + 0.05Tolerance mm Check : + - 0.10tolerance mm Rack travel in mm: 10.50 Tolerance mm : +- 1.50 Firing order : 1-3-4-2 Phasing : 0-90-180-270 Tolerance : +- 0.50 Check : **←** 0.75 tolerance °NW Start of delivery mark Barrel no. 1 : BASIC SETTING 900 Rated speed rpm : 12.30 Rack travel in mm : Tolerance mm : + - 0.05Del. quantity cm3/1000 strokes : 135.0 Tolerance cm3/1000 strokes : +-1.0 Check tolerance cm3/1000s.4.0 Spreed

Tolerance cm3/1000 strokes	: 4.0	Tolerance mm :	+- 2.70
Check tolerance cm3/1000s.	7.5	FULL LOAD DELIVERY A	AT FULL LOAD STOP
Rated speed rpm	+	Rated speed rpm : Aneroid pressure	900
Rack travel in mm	1: 4.90	hPa : Del. quantity	800
Tolerance mm	+ 0.20	cm3/1000 strokes :	135.0
Del. quantity cm3/1000 strokes	: 23.0		+ 1.0
Tolerance cm3/1000 strokes Check tolerance	: +- 2.0	Check tolerance cm3/1000S. : Spreed	+- 4.0
cm3/1000s. Spreed	: +- 4.5	Tolerance cm3/1000 strokes :	4.0
Tolerance cm3/1000 strokes	: 3.5	Check tolerance cm3/1000s.	7.5
Check tolerance cm3/1000s.	: 5.5		1.5
<i></i>	1	CONTROL LEVER	
(B) SETTING OF IN	JECTION PUMP		
WITH GOVERNOR	İ	control lever position degree :	121.0
		tolerance degree :	
GUIDE SLEEVE TRAV	EL †	RATED SPEED	
Rated speed rpm guide sleeve	: 400		11.30
travel mm	: 1.56	Rated speed rpm :	1253
Tolerance mm	: + 0.20	Tolerance 1/min :	+- 5
Rated speed rpm guide sleeve	: 1263	rack travel mm : Rated speed rpm :	4.00 1335
travel mm	: 9.98	, ,	
Tolerance mm	: +- 0.15	rack travel mm : Tolerance mm :	0.50 +- 0.50
Rated speed rpm guide sleeve	: 868	Rated speed rpm :	1450
travel mm	: 5.72		
Tolerance mm	: + 0.25	LOW IDLE	
Rated speed rpm guide sleeve	: 560		
travel mm	: 3.27	control lever	70.0
Tolerance mm	: + 0.25	position degree : tolerance degree :	78.0 +- 4.0
Rated speed rpm guide sleeve	: 1500	Testing:	
travel mm	: 13.50	Date describer of the control of the	400
Tolerance mm	: + 0.50		4.90
GUIDE SLEEVE POSI	TION		+- 0.10
Rated speed rpm	: 1350	Rated speed rpm :	300
Rack travel in mm	: 10.00	CRT mm min. : :	> 7.00

E10

cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 Aneroid pressure hPa : 800 Rated speed rpm : 650 Del. quantity cm3/1000 strokes : 741.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 5.0
Aneroid pressure hPa : 800 Rated speed rpm : 650 Del. quantity cm3/1000 strokes : 741.0
hPa : 800 Rated speed rpm : 650 Del. quantity cm3/1000 strokes : 141.0
Rated speed rpm : 650 Del. quantity cm3/1000 strokes : 741.0
Del. quantity cm3/1000 strokes : 141.0
+ cm3/1000 strokes : 141.0
+ Tolerance + cm3/1000 strokes : +- 2.0
Check tolerance
+ cm3/1000s. : +- 5.0
+
† Anerota pressure
hPa : -
Rated speed rpm : 500
+ Del. quantity + cm3/1000 strokes : 93.0
Tolerance
cm3/1000 strokes : + 1.0
+ Check tolerance
+ cm3/1000s. : + 3.0
t
DOCAMANA
BREAKAWAY
I
Rack travel in mm: 11.30
Rated speed rpm : 1253
Tolerance 1/min : + 5
+
STARTING FUEL DELIVERY
- 12 till miles I among a months and i
Rated speed rpm : 100
Del. quantity
cm3/1000 strokes : 110.0
Tolerance
cm3/1000 strokes : + 5.0 Check tolerance
+ cm3/1000s. : + 8.0
+
+
<u> </u>
LOW IDLE
Rated speed rpm : 400
rack travel mm : 4.90
Tolerance mm : + 0.20
Del. quantity cm3/1000 strokes : 23.0
cm3/1000 strokes : 23.0 Tolerance
cm3/1000 strokes : + 2.0
Check tolerance
cm3/1000s. : + 4.5 Spreed
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Tolerance cm3/1000 strokes : Check tolerance cm3/1000s. : 3.5

5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 08.04.96 Test oil : ISO 4113

Combination No. : 9 400 083 454

Injection pump

Pump designation : PES6A100D320/3RS2691

EP type number : 9 410 230 025

Governor

Governer design. : RSV400...900A7C2209

: -1R

Governer no. : 9 420 083 232

Cust. part No. :

Customer—spec. information Customer : CUMMINS Motor : 6 CT 8.3

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40 Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : +- 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : ∠ 26.0 Tolerance bar : ← 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05
Check

tolerance mm : \leftarrow 0.10

Rack travel in mm: 10.50
Toterance mm: + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : +- 1.50
Difference ° CS : 3.50

BASIC SETTING

Rated speed rpm : 900

Rack travel in mm : 12.75
Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 129.5

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 3.0

	.1
Spreed Tolerance cm3/1000 strokes : 3.5	control lever position degree : 108.0 tolerance degree : +- 4.0
Check tolerance cm3/1000s. : 8.0	ASSEMBLY GOVERNOR SETTING
Del. quantity cm3/1000 strokes : 18.5 Tolerance	Rated speed rpm : 943 rack travel mm : 11.70
cm3/1000 strokes : +- 2.0	Rated speed rpm : 979
Check tolerance cm3/1000S. : +- 4.5 Spreed	t Tolerance 1/min : + 2 rack travel mm : 4.00
Tolerance	rack travel mm : 0.85
cm3/1000 strokes : 5.5 Check tolerance	+ Tolerance mm : +- 0.55 + Rated speed rpm : 1100
cm3/1000s. ; 9.0	Rated speed rpm : 944
(D) CETTING OF THISCATION DUMP	rack travel mm : 11.70
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Rated speed rpm : 980
	Tolerance 1/min : + 2 rack travel mm : 4.00
GUIDE SLEEVE POSITION	rack travel mm : 0.85
GOINE SPEEAE LOSTITOM	+ Tolerance mm : + 0.55
Rated speed rpm : 800	Rated speed rpm : 1100
Rack travel in mm : 0.65 Tolerance mm : + 0.35	Rated speed rpm : 945 rack travet mm : 11.70
governor_spring	Rated speed rpm : 981
pre-tension click setting x : 5.25	+ Tolerance 1/min : +- 2 + rack travel mm : 4.00
teres deterning it.	+
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 0.85 Tolerance mm : +- 0.55
	Rated speed rpm : 1100
Rated speed rpm : 900 Aneroid pressure	Rated speed rpm : 946
hPa : -	rack travel mm : 11.70
Del. quantity cm3/1000 strokes : 129.5	Rated speed rpm : 982
Tolerance	+ Tolerance 1/min : + 2
cm3/1000 strokes : + 1.0 Check tolerance	rack travel mm : 4.00
cm3/1000s. : +- 3.0	rack travel mm : 0.85
Spreed Tolerance	+ Tolerance mm : + 0.55 + Rated speed rpm : 1100
cm3/1000 strokes : 3.5	+
Check tolerance cm3/1000s. : 8.0	Rated speed rpm : 947 rack travel mm : 11.70
	+ Rated speed rpm : 983
	+ Tolerance 1/min : + 2
CONTROL LEVER	rack travel mm : 4.00
	rack travel mm : 0.85

Tolerance mm	: +- 0.55
Rated speed rpm	: 1100
Rated speed rpm	: 948
rack travel mm	: 11.70
Rated speed rpm	: 984
Tolerance 1/min	: + 2
rack travel mm	: 4.00
rack travel mm	: 0.85
Tolerance mm	: +- 0.55
Rated speed rpm	: 1100

control lever
position degree : 77.0
tolerance degree : +- 4.0

Setting point w/out bumper spring

Rated speed rpm : 400 rack travel mm : 5.20

Testing:

Rated speed rpm : 400 rack travel mm : 5.70 Tolerance mm : + 0.10

rack travel mm : 2.00
Rated speed rpm : 440
Tolerance 1/min : + 30

Rated speed rpm : 100

CRT mm min. : > 19.00

TORQUE CONTROL

Rated speed rpm : 900 rack travel mm : 12.75 Tolerance mm : + 0.05

Rated speed rpm : 550 rack travel mm : 12.80 Tolerance mm : + 0.10

Rated speed rpm : 400 rack travel mm : 14.30 Tolerance mm : +- 0.30

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 20.00
Tolerance mm : +- 1.00
Del. quantity
cm3/1000 strokes : 142.0
Tolerance
cm3/1000 strokes : +- 8.0
Check tolerance
cm3/1000s. : +- 11.0

LOW IDLE

Del. quantity		
cm3/1000 strokes	:	18.5
Tolerance		
cm3/1000 strokes	: +	2.0
Check tolerance		
cm3/1000s.	: +-	4.5
Spreed		
Tolerance		
cm3/1000 strokes	:	5.5
Check tolerance		
cm3/1000s.	:	9.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 08.04.96 Test oil : ISO 4113

Combination No. : 9 400 083 454DF

Injection pump

Pump designation : PES6A100D320/3RS2691

EP type number : 9 410 230 025

Governor

Governer design. : RSV400...900A7c2209

: -1R

Governer no. : 9 420 083 232

Cust. part No. :

Customer—spec. information Customer : CUMMINS Motor : 6 CT 8.3

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. $^{\circ}$ C : 40 Tolerance $^{\circ}$ C : \leftarrow 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : +- 1.50
Difference ° CS : 3.50

BASIC SETTING

Rated speed rpm : 900

Rack travel in mm : 11.15 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 101.5

Tolerance cm3/1000 strokes : + 0.5

Check tolerance

cm3/1000S. : +- 2.5

	T	
Spreed Tolerance cm3/1000 strokes : 3.5	control lever position degree tolerance degree	: 10 : +-
Check tolerance cm3/1000s. : 6.0	ASSEMBLY GOVERNOR	
	+	
Del. quantity cm3/1000 strokes : 18.5 Tolerance	Rated speed rpm rack travel mm	
cm3/1000 strokes : +- 2.0 Check tolerance	Rated speed rpm Tolerance 1/min	
cm3/1000s. : +- 4.5 Spreed	rack travel mm	: 4
Tolerance cm3/1000 strokes : 3.5 Check tolerance	rack travel mm Tolerance mm Rated speed rpm	: +- 0 : +- 11:
cm3/1000s. : 5.5	- Kated speed (pill	11.
	Rated speed rpm rack travel mm	
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	+ Rated speed rpm	: 9
WITH GOVERNOR	Tolerance 1/min	
	rack travel mm	: 4
GUIDE SLEEVE POSITION	rack travel mm	: 0
Patrat annual num	+ Tolerance mm	: +- 0
Rated speed rpm : 800	+ Rated speed rpm	
Rack travel in mm: 0.65	Rated speed rpm	: 94 : 10
Tolerance mm : + 0.35	rack travel mm	: 10
governor spring	Rated speed rpm	: 97
pre-tension	† Tolerance 1/min	
click setting $x : 5.25$	+ rack travel mm	: 4.
	rack travel mm	: 0
FULL LOAD DELIVERY AT FULL LOAD STOP	+ Tolerance mm + Rated speed rpm	: +- 0. : 115
Rated speed rpm : 900	T water speed rpm	
Aneroid pressure	+ Rated speed rpm	
hPa : -	+ rack travel mm	: 10.
Del. quantity cm3/1000 strokes : 101.5	+ Rated speed rpm	: 97
Tolerance	+ Tolerance 1/min	: +-
cm3/1000 strokes : + 0.5 Check tolerance	rack travel mm	: 4.
cm3/1000s. : +- 2.5	T rack travel mm	: 0.
Spreed	† Tolerance mm	: + 0.
Tolerance	+ Rated speed rpm	: 115
cm3/1000 strokes : 3.5 Check tolerance	Rated speed rpm	: 94
cm3/1000s. : 6.0	rack travel mm	: 10.
	T Rated encod and	: 97
	+ Rated speed rpm + Tolerance 1/min	: +-
CONTROL LEVER	+ rack travel mm	4.
	+	
	† rack travel mm	: 0.

Tolerance mm	: +- 0.55
Rated speed rpm	: 1150
Rated speed rpm	: 948
rack travel mm	: 10.10
Rated speed rpm	: 977
Tolerance 1/min	: + 2
rack travel mm	: 4.00
rack travel mm	: 0.85
Tolerance mm	: +- 0.55
Rated speed rpm	: 1150

control lever position degree : 78.0 tolerance degree : + 4.0

Setting point w/out bumper spring

Rated speed rpm : 400 rack travel mm : 5.50

Testing:

Rated speed rpm : 400 rack travel mm : 6.00 Tolerance mm : + 0.10

rack travel mm : 2.00
Rated speed rpm : 445
Tolerance 1/min : +- 30

Rated speed rpm : 100

CRT mm min. : > 19.00

TORQUE CONTROL

Rated speed rpm : 900 rack travel mm : 11.15 Tolerance mm : + 0.05

Rated speed rpm : 550 rack travel mm : 11.20 Tolerance mm : + 0.10

Rated speed rpm : 400 rack travel mm : 12.60 Tolerance mm : + 0.30

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 20.00
Tolerance mm : + 1.00
Del. quantity
cm3/1000 strokes : 142.0
Tolerance
cm3/1000 strokes : + 7.0
Check tolerance
cm3/1000s. : + 10.0

LOW IDLE

Del. quantity cm3/1000 strokes : 18.5 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance 5.5 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 08.04.96 Test oil : ISO 4113

Combination No. : 9 400 083 454DG

Injection pump

Pump designation : PES6A100D320/3RS2691

EP type number : 9 410 230 025

Governor

Governer design. : RSV400...900A7C2209

: -1R

Governer no. : 9 420 083 232

Cust. part No. :

Customer—spec. information Customer : CUMMINS Motor : 6 CT 8.3

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. $^{\circ}$ C : 40 Tolerance $^{\circ}$ C : \leftarrow 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0
Tolerance bar : + 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50
Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : + 1.50
Difference ° CS : 3.50

BASIC SETTING

Rated speed rpm : 900

Rack travel in mm : 12.75
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 129.5

Tolerance

cm3/1000 strokes : + 0.5

Check tolerance

cm3/1000s. : +- 2.5

	1
Spreed Tolerance cm3/1000 strokes : 3.5	control lever position degree : 108.0 tolerance degree : +- 4.0
Check tolerance cm3/1000s. : 6.0	ASSEMBLY GOVERNOR SETTING
Del. quantity cm3/1000 strokes : 18.5 Tolerance	Rated speed rpm : 943 rack travel mm : 11.70
cm3/1000 strokes : + 2.0 Check tolerance	Rated speed rpm : 979 Tolerance 1/min : +- 2
cm3/1000s. : +- 4.5 Spreed	rack travel mm : 4.00
Tolerance cm3/1000 strokes : 3.5	rack travel mm : 0.85 Tolerance mm : + 0.55
Check tolerance cm3/1000s. : 5.5	Rated speed rpm : 1100
	Rated speed rpm : 944 rack travel mm : 11.70
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Rated speed rpm : 980 Tolerance 1/min : + 2 rack travel mm : 4.00
GUIDE SLEEVE POSITION	rack travel mm : 0.85
Rated speed rpm : 800	Tolerance mm : + 0.55 Rated speed rpm : 1100
Rack travel in mm : 0.65 Tolerance mm : + 0.35	Rated speed rpm : 945 rack travel mm : 11.70
<pre>governor spring pre-tension click setting x : 5.25</pre>	Rated speed rpm : 981 Tolerance 1/min : + 2 rack travel mm : 4.00
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1100
Rated speed rpm : 900 Aneroid pressure	Rated speed rpm : 946
hPa : - Del. quantity	rack travel mm : 11.70
cm3/1000 strokes : 129.5 Tolerance	Rated speed rpm : 982 Tolerance 1/min : + 2
cm3/1000 strokes : + 0.5 Check tolerance	rack travel mm : 4.00
cm3/1000S. : + 2.5 Spreed Tolerance	rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1100
cm3/1000 strokes : 3.5 Check tolerance	Rated speed rpm : 947
cm3/1000s. : 6.0	rack travel mm : 11.70
	Rated speed rpm : 983 Tolerance 1/min : + 2
CONTROL LEVER	+ rack travel mm : 4.00
	+ rack travel mm : 0.85

Tolerance mm	: +- 0.55
Rated speed rpm	: 1100
Rated speed rpm	: 948
rack travel mm	: 11.70
Rated speed rpm	: 984
Tolerance 1/min	: + 2
rack travel mm	: 4.00
rack travel mm	: 0.85
Tolerance mm	: + 0.55
Rated speed rpm	: 1100

control lever		
position degree	:	78.0
tolerance degree	: +-	4.0

Setting point w/out bumper spring

Rated speed	rpm	:	400
rack travel	mm	:	5.50

Testing:

Rated speed rpm	:		400
rack travel mm	:		6.00
Tolerance mm	:	+-	0.10

rack travel mm	:	2.00
Rated speed rpm	:	445
Tolerance 1/min		+- 30

Rated speed rpm : 100

CRT mm min. : > 19.00

TORQUE CONTROL

Rated speed rpm	:		900 12.75
rack travel mm	:		14.73
Tolerance mm	: -	} -	0.05

Rated speed rpm	:	550
rack travel mm	:	12.80
Tolerance mm	: .	← 0.10

Rated speed rpm	:	400
rack travel mm	:	14.30
Tolerance mm	: +	-0.30

STARTING FUEL DELIVERY

Rated speed rpm	:		100
rack travel mm	:		20.00
Tolerance mm	:	+-	1.00
Del. quantity			
cm3/1000 strokes	:		142.0
Tolerance			
cm3/1000 strokes	:	+-	7.0
Check tolerance			
cm3/1000s.	:	+-	10.0

LOW IDLE

Del. quantity cm3/1000 strokes Tolerance	•	18.5	
cm3/1000 strokes	: +-	2.0	
Check tolerance cm3/1000s.	: +-	4.5	
Spreed Tolerance			
cm3/1000 strokes Check tolerance	:	3.5	
cm3/1000s.	*	5.5	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 08,04,96 Edition Test oil : ISO 4113

Combination No. : 9 400 083 454ED

Injection pump

Pump designation : PES6A100D320/3RS2691 EP type number : 9 410 230 025

Governor

Governer design. : RSV400...900A7C2209

: -1R

: 9 420 083 232 Governer no.

Cust. part No. : 3355522-VERSA043

Customer-spec. information Customer : CUMMINS Motor : 6 CT 8.3 Power KW : 135.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C 2.0

Overflow valve : 1 419 992 198

1.5 Inlet press. bar :

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 bar Tolerance bar : +- 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0 x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : \leftarrow 1.0

Prestroke mm 2.85 : + 0.05 Tolerance mm Check

: + 0.10tolerance mm

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Beginning of delivery differende

and maximum rack

travel 10.50 Tolerance mm : + 1.50 Difference * CS 3.50

BASIC SETTING

Rated speed rpm 720

Rack travel in mm : 13.25 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes :

142.0

Tolerance

cm3/1000 strokes : +-1.0

Check tolerance

cm3/1000s. 3.0 : +-

Spreed	control lever
Tolerance	position degree : 95.0
cm3/1000 strokes : 3.5	tolerance degree : +- 4.0
Check tolerance	- +
cm3/1000s. : 8.0	+ ASSEMBLY GOVERNOR SETTING
Del. quantity	Rated speed rpm : 765
cm3/1000 strokes : 11.0	rack travel mm : 12.20
Tolerance	†
cm3/1000 strokes : +- 2.0 Check tolerance	Rated speed rpm : 802 Tolerance 1/min : +- 2
cm3/1000s. : +- 4.5	rack travel mm : 4.00
Spreed	+
Tolerance	+ rack travel mm : 0.85
cm3/1000 strokes : 5.5 Check tolerance	+ Tolerance mm : + 0.55 + Rated speed rpm : 900
cm3/1000s. : 9.0	Added speed i piii . 700
	Rated speed rpm : 766
(B) SETTING OF INJECTION PUMP	track travel mm : 12.20
WITH GOVERNOR	Rated speed rpm : 803
	+ Tolerance 1/min : +- 2
	+ rack travel mm : 4.00
GUIDE SLEEVE POSITION	rack travel mm : 0.85
	+ Tolerance mm : + 0.55
Rated speed rpm : 800	Rated speed rpm : 900
Rack travel in mm : 0.65	Rated speed rpm : 767
Tolerance mm : + 0.35	rack travel mm : 12.20
governor spring	Rated speed rpm : 804
pre-tension	+ Tolerance 1/min : + 2
click setting $x : 4.50$	rack travel mm : 4.00
	rack travel mm : 0.85
FULL LOAD DELIVERY AT FULL LOAD STOP	+ Tolerance mm : + 0.55
Potent aread non a 720	Rated speed rpm : 900
Rated speed rpm : 720 Aneroid pressure	Rated speed rpm : 768
hPa : -	+ rack travel mm : 12.20
Del. quantity	+ 2
cm3/1000 strokes : 142.0 Tolerance	Rated speed rpm : 805 Tolerance 1/min : + 2
cm3/1000 strokes : +- 1.0	rack travel mm : 4.00
Check tolerance	+
cm3/1000s. : + 3.0	rack travel mm : 0.85 Tolerance mm : +- 0.55
Spreed Tolerance	Rated speed rpm : 900
cm3/1000 strokes : 3.5	+
Check tolerance	Rated speed rpm : 769
cm3/1000s. : 8.0	+ rack travel mm : 12.20
	Rated speed rpm : 806
	+ Tolerance 1/min : + 2
CONTROL LEVER	+ rack travel mm : 4.00
	rack travel mm : 0.85
	•

Tolerance mm	: +- 0.55
Rated speed rpm	: 770
rack travel mm	: 12.20
Rated speed rpm	: 807
Tolerance 1/min	: ← 2
rack travel mm	: 4.00
rack travel mm	: 0.85
Tolerance mm	: + 0.55
LOW IDLE	

control lever
position degree : 75.0
tolerance degree : + 4.0

Setting point w/out bumper spring

Rated speed rpm : 400 rack travel mm : 4.00

Testing:

Rated speed rpm : 400 rack travel mm : 4.50 Tolerance mm : + 0.10

rack travel mm : 2.00
Rated speed rpm : 425
Tolerance 1/min : + 30

Rated speed rpm : 100

CRT mm min. : > 19.00

TORQUE CONTROL.

Rated speed rpm : 720
rack travel mm : 13.25
Tolerance mm : + 0.05

Rated speed rpm : 550 rack travel mm : 13.30 Tolerance mm : + 0.10

Rated speed rpm : 400 rack travel mm : 14.90 Tolerance mm : + 0.30

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 20.00
Tolerance mm : + 1.00
Del. quantity
cm3/1000 strokes : 142.0
Tolerance
cm3/1000 strokes : + 8.0
Check tolerance
cm3/1000s. : + 11.0

LOW IDLE

Del. quantity cm3/1000 strokes : 11.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance cm3/1000 strokes : 5.5 Check tolerance cm3/1000s. 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 04.03.96 Test ail : ISO 4113

Combination No. : 9 400 083 458

Injection pump

Pump designation : PES6A100b320/3RS2691

: -2

EP type number : 9 410 230 028

Governor

Governer design. : RQV350...1100AB1218

: -1R

: 9 420 080 302 Governer no.

Cust. part No. : 3354617

Customer-spec, information Customer : CUMMINS Motor : 6 CT : 156.6 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05 2.85 Check tolerance mm : + 0.10

Rack travel in mm: 10.50 : + 1.50 Tolerance mm

; 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300

Beginning of delivery differende

and maximum rack

10.50 travel : Tolerance mm : + 1.50 Difference ° CS : 3.50

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 12.65 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 118.0

Tolerance

cm3/1000 strokes : +- 1.0

E25

Check tolerance		+ Rated speed rpm	: 1100
cm3/1000s.	: +- 3.0	+ Aneroid pressure	
		+ hPa	: 800
Spreed		+ Del. quantity	440.0
Tolerance cm3/1000 strokes	. 75	+ cm3/1000 strokes	: 118.0
CUDY LOOK STROKES	: 3.3	+ Tolerance + cm3/1000 strokes	10
Check tolerance		Check tolerance	
cm3/1000s.		cm3/1000s.	: +- 3.0
		Spreed	
Del. quantity		Tolerance	
cm3/1000 strokes	: 15.0	+ cm3/1000 strokes	
Tolerance		+ Check tolerance	
cm3/1000 strokes Check tolerance		+ cm3/1000s.	: 8.0
cm3/1000s.	: +- 4.5	I	
Spreed	,,,,		
Tolerance		+ CONTROL LEVER	
cm3/1000 strokes		+	
Check tolerance		+ control lever	F1 @
cm3/1000s.	: 9.0	+ position degree	56.0
		tolerance degree	: +- 4.0
(B) SETTING OF IN	JECTION PUMP	- control lever	
WITH GOVERNOR		+ position degree	: 111.0
		tolerance degree	: +- 4.0
AUTOR OF FRUIT TOAL			
GUIDE SLEEVE TRAV	/EL	RATED SPEED	
Rated speed rpm	: 1150	rack travel mm	: 11.60
guide sleeve		Rated speed rpm	
travel mm	: 7.00	+ Tolerance 1/min	: +- 5
Tolerance mm	: ← 0.10	+	
Dadad annal ann	. 4/00	rack travel mm	: 4.00
Rated speed rpm guide sleeve	: 1400	Rated speed rpm Tolerance 1/min	: +- 15
travel mm	: 8.95	T Total ance Trimin	. + 15
Tolerance mm		rack travel mm	: 0.50
		+ Tolerance mm	: +- 0.50
Rated speed rpm	: 350	Rated speed rpm	: 1500
guide sleeve		+	
travel mm	: 1.65	+	
Tolerance mm	: + 0.25	104 704 5	
Rated speed rpm	: 650	+ LOW IDLE	
guide steeve	. 000	I	
travel mm	: 4,45	control lever	
Tolerance mm	: +- 0.25	+ position degree	: 71.0
		+ tolerance degree	
CUINE OF SELECTION	TTON	- + control lever	
GUIDE SLEEVE POSI	, I LUIV	position degree	: 16.0
Rated speed rpm	: 1315	tolerance degree	
		+	
Rack travel in mm		† Testing:	
Tolerance mm	: +- 1.30	Dated aread non	: 350
		Rated speed rpm - rack travel mm	: 5.90
FILL LOAD DELTVED	Y AT FULL LOAD STOP	+ Tolerance mm	: +- 0.10
AFF FAUN AFFTAFK	, AT TOLL LORD OTO	A COLOR CONTRACTOR CON	
		ľ	

Rated speed rpm : 100			
Rated speed rpm : 425 Speed 1/min :> 80 Check	Rated speed rpm	: 100	+ Check
Rated speed rpm : 425	·		+ speed 1/min : > 80
Rated speed rpm : 425	CRT mm min.	: > 9.00	
TORQUE CONTROL Rated speed rpm : 1100			+ speed 1/min : < 290
Rated speed rpm : 1100	Rated speed rpm	: 425	+
Rated speed rpm : 1100			
Rated speed rpm : 1100			+ FUEL DELIVERY CHARACTERISTICS
Rated speed rpm : 1100	TORQUE CONTROL		†
Rated speed rpm : 700 Del. quantity cm3/1000 strokes : 133.0 Tolerance mm : + 0.05 Del. quantity cm3/1000 strokes : + 2.0 Tolerance mm : + 0.05 Check tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000 strokes : + 4.0 Tolerance mm : + 0.10 Aneroid pressure hPa : 800 Rated speed rpm : 950 Del. quantity cm3/1000 strokes : 130.5 Tolerance mm : + 0.15 Tolerance mm : + 0.15 Tolerance mm : + 0.15 Tolerance cm3/1000 strokes : 130.5 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000 strokes : + 4.0 Check tolerance cm3/1000 strokes : + 8.0 Check tolerance cm3/1000 strokes : + 8.0 Check tolerance cm3/1000 strokes : + 8.0 Check tolerance cm3	Bakad amand ava	4400	
Tolerance mm			•
Rated speed rpm : 700 rack travel mm : 13.65 Tolerance mm : + 0.05 Rated speed rpm : 800 rack travel mm : 13.40 Tolerance mm : + 0.10 Rated speed rpm : 800 Rated speed rpm : 950 rack travel mm : 12.95 Tolerance mm : + 0.15 Rated speed rpm : 950 rack travel mm : 12.95 Tolerance mm : + 0.15 ANEROID/ALTITUDE COMPENSATOR TEST Rated speed rpm : 500 Rated speed rpm : 500 Pressure hPa : 800 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 11.95 Tolerance mm : + 0.05 MEASUREMENT Pressure hPa : 500 Rated speed rpm : 1160 Rated speed rpm : 100 Rated speed rpm : 20.00 Ra			
Rated speed rpm : 700	Toterance num	: +- 0.03	
Tack travel mm	man beens beted	• 700	
Tolerance mm			
Rated speed rpm : 800 rack travel mm : 13.40 Tolerance mm : + 0.10 Rated speed rpm : 950 rack travel mm : 12.95 rolerance mm : + 0.15 ANEROID/ALTITUDE COMPENSATOR TEST Rated speed rpm : 500 Pressure hPa : 800 Rated speed rpm : 500 Pressure hPa : 4.0 MEASUREMENT Pressure hPa : 500 Rated speed rpm : 500 Pressure hPa : 500 Rated speed rpm : 500 Rated speed rpm : 500 Pressure hPa :			
Rated speed rpm	1000100 11111	0.05	
Tack travel mm	Rated speed rpm	: 800	1
Rated speed rpm : 950			Aneroid pressure
Rated speed rpm : 950 rack travel mm : 12.95 Tolerance mm : + 0.15 ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm : 500 Pressure hPa : 800 MEASUREMENT Pressure hPa : 500 Rated speed rpm : 500 MEASUREMENT Pressure hPa : 500 Rated speed rpm : 500 MEASUREMENT Pressure hPa : 500 Rated speed rpm : 500 Pressure hPa : 500 Rated speed rpm : 500 MEASUREMENT Pressure hPa : 500 Rated speed rpm : 500 Rated speed rpm : 500 MEASUREMENT Pressure hPa : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 11.60 Rated speed rpm : 1160 Tolerance 1/min : + 5 Pressure hPa : 500 Rated speed rpm : 100 Rated speed rpm : 100 Pressure hPa : 600 Rated speed rpm : 100 Pressure hPa : 600 Tolerance mm : + 0.10 Pressure hPa : 600 Tolerance mm : 20.00 Tolerance mm : 20.00 Tolerance mm : + 1.00 Del. quantity cm3/1000 strokes : + 8.0 Check tolerance			
Del. quantity cm3/1000 strokes : 130.5			
Tolerance mm	Rated speed rpm	: 950	+ Del. quantity
ANEROID/ALTITUDE COMPENSATOR TEST Aneroid pressure hPa : - Rated speed rpm : 500 Pressure hPa : 800 rack travel mm : 13.65 Tolerance mm : + 0.15 Rated speed rpm : 500 MEASUREMENT Pressure hPa : - Rated speed rpm : 500 Rated speed rpm : 500 MEASUREMENT Pressure hPa : - Rated speed rpm : 11.95 Tolerance mm : + 0.15 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Pressure hPa : - Rated speed rpm : 500 Rated speed rpm : 500 Pressure hPa : 500 Rated speed rpm : 11.60 Rated speed rpm : 12.30 Tolerance mm : + 0.10 STARTING FUEL DELIVERY Pressure hPa : 600 rack travel mm : 13.25 Tolerance mm : + 0.05 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : + 1.00 Del. quantity cm3/1000 strokes : + 8.0 Check tolerance cm3/1000 strokes : + 8.0 Check tolerance cm3/1000 strokes : + 8.0 Check tolerance cm3/1000 strokes : + 8.0 Check tolerance	rack travel mm	: 12.95	
ANEROID/ALTITUDE COMPENSATOR TEST Aneroid pressure hPa : - Rated speed rpm : 500 Pressure hPa : 800 rack travel mm : 13.65 Tolerance mm : + 0.05 MEASUREMENT Pressure hPa : 500 Rated speed rpm : 500 MEASUREMENT Pressure hPa : - Rated speed rpm : 500 Rated speed rpm : 500 rack travel mm : 11.95 Tolerance mm : + 0.15 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 11.60 Rated speed rpm : 500 Pressure hPa : 500 rack travel mm : 12.30 Tolerance mm : + 0.10 STARTING FUEL DELIVERY Pressure hPa : 600 Rated speed rpm : 100 rack travel mm : 13.25 Tolerance mm : + 0.05 START CUT-OUT Rated speed rpm : > 100 Rated speed rpm : 100 Del. quantity cm3/1000 strokes : + 8.0 Check tolerance cm3/1000strokes : + 8.0 Check tolerance cm3/1000 strokes : + 8.0 Check tolerance	Tolerance mm	: + 0.15	
ANEROID/ALTITUDE COMPENSATOR TEST Aneroid pressure hPa : - Rated speed rpm : 500 Pressure hPa : 800 rack travel mm : 13.65 Tolerance mm : + 0.15 Rated speed rpm : 500 MEASUREMENT Pressure hPa : - Rated speed rpm : 500 MEASURE from : 11.95 Tolerance mm : + 0.15 Rated speed rpm : 500 Pressure hPa : - Rated speed rpm : 500 Rated speed rpm : 500 Pressure hPa : 500 Rated speed rpm : 500 Rated speed rpm : 500 Pressure hPa : 500 Rated speed rpm : 11.60 Rated speed rpm : 12.30 Tolerance mm : + 0.10 Pressure hPa : 600 Rated speed rpm : 100 rack travel mm : 13.25 Tolerance mm : + 0.10 STARTING FUEL DELIVERY Pressure hPa : 600 Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : + 1.00 Del. quantity cm3/1000 strokes : 170.0 Tolerance cm3/1000 strokes : + 8.0 Check tolerance			
Aneroid pressure			
Aneroid pressure hPa			+ cm3/1000S. : + 4.0
NPa	COMPENSATOR TEST		Anancid massums
Rated speed rpm : 500 Rated speed rpm : 500 Pressure hPa : 800 rack travel mm : 13.65 Tolerance mm : + 0.05 MEASUREMENT Pressure hPa : 500 Rated speed rpm : 500 MEASUREMENT Pressure hPa :			
Rated speed rpm : 500 Pressure hPa : 800 rack travel mm : 13.65 Tolerance mm : + 0.05 MEASUREMENT Pressure hPa : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Pressure hPa : - 0.15 Rated speed rpm : 500 Rated speed rpm : 500 Pressure hPa : 500 Rated speed rpm : 11.60 Rated speed rpm : 12.30 Tolerance mm : + 0.10 Pressure hPa : 600 rack travel mm : 12.30 Tolerance mm : + 0.10 STARTING FUEL DELIVERY Pressure hPa : 600 rack travel mm : 13.25 Tolerance mm : + 0.05 Rated speed rpm : 100 Pressure hPa : 600 Rated speed rpm : 100 Rated speed rpm : 100 Tolerance mm : + 0.05 Rated speed rpm : 100 Tolerance mm : + 1.00 Del. quantity cm3/1000 strokes : 170.0 Tolerance Tolerance mm : + 1.00 Del. quantity cm3/1000 strokes : 4.0 Check tolerance	CETTAN		t the second sec
Rated speed rpm : 500 Pressure hPa : 800 Tolerance rack travel mm : 13.65 Tolerance mm : + 0.05 MEASUREMENT Pressure hPa : 500 Rated speed rpm : 500 Rated speed rpm : 500 Pressure hPa : 500 Rated speed rpm : 500 Pressure hPa : 500 Rated speed rpm : 500 Pressure hPa : 500 Rated speed rpm : 11.60 Rated speed rpm : 500 Pressure hPa : 500 Tolerance mm : + 0.10 Pressure hPa : 600 Rated speed rpm : 100 STARTING FUEL DELIVERY Pressure hPa : 600 Rated speed rpm : 100 STARTING FUEL DELIVERY Pressure hPa : 600 Rated speed rpm : 100 STARTING FUEL DELIVERY Pressure hPa : 600 Rated speed rpm : 100 STARTING FUEL DELIVERY Pressure hPa : 600 Rated speed rpm : 100 STARTING FUEL DELIVERY Pressure hPa : 600 Tolerance mm : + 1.00 Del. quantity cm3/1000 strokes : 170.0 Tolerance cm3/1000 strokes : 48.0 Check tolerance Cm3/1000 strokes : 48.0 Check tolerance	SELLTING		
Tolerance	Poted speed spm	• 500	
Tack travel mm			
Tolerance mm : + 0.05 MEASUREMENT Pressure hPa : -	rack travel mm		
MEASUREMENT cm3/1000s. : + 3.0 Pressure hPa Rated speed rpm : 500 rack travel mm : 11.95 BREAKAWAY Rated speed rpm : 500 Rated speed rpm : 1160 Rated speed rpm : 1160 rack travel mm : 12.30 rack travel mm : 12.30 rack travel mm : 12.30 rack travel mm : 13.25 rack travel mm : 20.00 rack travel mm : 13.25 rack travel mm : 20.00 rack travel mm : 13.25 rack travel mm : 20.00 rack travel mm : 100 rack travel mm : 20.00 rack travel mm : 4 1.00 rack travel mm :		: +- 0.05	
### Pressure hPa : -	1001010100		
Pressure hPa : -	MEASUREMENT		+
Rated speed rpm : 500 rack travel mm : 11.95 Tolerance mm : + 0.15 Rated speed rpm : 500 Rated speed rpm : 1160 Rated speed rpm : 1160 Pressure hPa : 500 rack travel mm : 12.30 Tolerance mm : + 0.10 Pressure hPa : 600 rack travel mm : 13.25 Tolerance mm : + 0.05 Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : + 1.00 Del. quantity cm3/1000 strokes : 170.0 Rated speed rpm : > 100 Rated speed rpm : + 8.0 Check tolerance			
Tack travel mm	Pressure hPa	: -	+ BREAKAWAY
Rated speed rpm : 500 Rated speed rpm : 11.60			+
Rated speed rpm : 500 Pressure hPa : 500 rack travel mm : 12.30 Tolerance mm : + 0.10 Pressure hPa : 600 rack travel mm : 13.25 Tolerance mm : + 0.05 Tolerance mm : + 0.05 Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : + 1.00 Del. quantity cm3/1000 strokes : 170.0 Tolerance cm3/1000 strokes : + 8.0 Check tolerance			†
Rated speed rpm : 500 Pressure hPa : 500 rack travel mm : 12.30 Tolerance mm : + 0.10 Pressure hPa : 600 rack travel mm : 13.25 Tolerance mm : + 0.05 Tolerance mm : + 0.05 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : + 1.00 Del. quantity cm3/1000 strokes : 170.0 Tolerance cm3/1000 strokes : + 8.0 Check tolerance	Tolerance mm	: +- 0.15	
Pressure hPa : 500 rack travel mm : 12.30 Tolerance mm : + 0.10 Pressure hPa : 600 rack travel mm : 13.25 Tolerance mm : + 0.05 Tolerance mm : + 0.05 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : + 1.00 Del. quantity cm3/1000 strokes : 170.0 Tolerance cm3/1000 strokes : + 8.0 Check tolerance			
Tack travel mm	Rated speed rpm	: 500	+ Tolerance 7/min : +- 5
Tack travel mm	D	. 500	†
Tolerance mm : + 0.10			Ī
Pressure hPa : 600 rack travel mm : 13.25 Tolerance mm : + 0.05 START CUT-OUT Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : + 1.00 Del. quantity cm3/1000 strokes : 170.0 Tolerance cm3/1000 strokes : + 8.0 Check tolerance			I STARTING FILE DELIVERY
rack travel mm : 13.25 Tolerance mm : + 0.05 Tolerance mm : + 1.00 Del. quantity cm3/1000 strokes : 170.0 Tolerance cm3/1000 strokes : + 8.0 Rated speed rpm : > 100 Rated speed rpm : > 100	roterance min	. +- 0.10	TOTAL TIME TOLE DELIVERY
rack travel mm : 13.25 Tolerance mm : + 0.05 Tolerance mm : + 1.00 Del. quantity cm3/1000 strokes : 170.0 Tolerance cm3/1000 strokes : + 8.0 Rated speed rpm : > 100 Rated speed rpm : > 100	Pressure hPa	: 600	Rated speed rom : 100
Tolerance mm : +- 0.05 Tolerance mm : +- 1.00 Del. quantity cm3/1000 strokes : 170.0 Tolerance cm3/1000 strokes : +- 8.0 Rated speed rpm : > 100 Check tolerance			
Del. quantity cm3/1000 strokes : 170.0 START CUT-OUT Tolerance cm3/1000 strokes : +- 8.0 Rated speed rpm : > 100 Check tolerance			
cm3/1000 strokes : 170.0 Tolerance cm3/1000 strokes : + 8.0 Rated speed rpm : > 100 Check tolerance			
Rated speed rpm : > 100 + cm3/1000 strokes : +- 8.0 + Check tolerance			
Rated speed rpm : > 100 + Check tolerance	START CUT-OUT		
Rated speed rpm : < 270 + cm3/1000s. : +- 11.0			
+	Rated speed rpm	: < 270	+ cm3/1000s. : +- 11.0
·			+

Del. quantity cm3/1000 strokes	:	15.0
Tolerance	•	
cm3/1000 strokes	: +	5.0
Check tolerance cm3/1000s.	• 4-	4.5
Spreed	, .,	4.5
Tolerance		
cm3/1000 strokes	•	5.5
Check tolerance cm3/1000s.	:	9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 08.04.96 Test oil : ISO 4113

Combination No. : 9 400 083 458EA

Injection pump

Pump designation : PES6A100D320/3RS2691

: -2

EP type number : 9 410 230 028

Governor

Governer design. : RQV350...1100AB1218

: -1R

Governer no. : 9 420 080 302

Cust. part No. : 3354950-VERSA040

Customer—spec. information
Customer : CUMMINS
Motor : 6 CT 8.3
Power KW : 130.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : + 1.50
Difference ° CS : 3.50

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 11.75
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 102.0

Tolerance

cm3/1000 strokes : +- 1.0

. 1.0

Check tolerance	- Rated speed rpm : 1100
cm3/1000s. : + 3.0	- Aneroid pressure
	- hPa : 600
Spreed	- Del. quantity
Tolerance	- cm3/1000 strokes : 102.0
cm3/1000 strokes : 3.5	- Tolerance
	- cm3/1000 strokes : +- 1.0
Check tolerance	- Check tolerance
cm3/1000s. : 8.0	- cm3/1000s. : +- 3.0
	- Spreed
Del. quantity	- Tolerance
cm3/1000 strokes : 15.0	- cm3/1000 strokes : 3.5
Tolerance	- Check tolerance
cm3/1000 strokes : + 2.0	- cm3/1000s. : 8.0
Check tolerance	•
cm3/1000s. : +- 4.5 $+$	•
Spreed	
Tolerance	- CONTROL LEVER
cm3/1000 strokes : 5.5	•
Check tolerance	- control lever
cm3/1000s. : 9.0	- position degree : 55.0
+	- tolerance degree : +- 4.0
+	•
(B) SETTING OF INJECTION PUMP +	- control lever
WITH GOVERNOR +	position degree : 111.0
†	tolerance degree : +- 4.0
CUTOE OF FEUE TOAUE	DATEN COCCA
GUIDE SLEEVE TRAVEL	RATED SPEED
Rated speed rpm : 1150	rack travel mm : 10.70
guide steeve	Rated speed rpm : 1160
travel mm : 7.00	Tolerance 1/min : +- 5
Tolerance mm : + 0.10	
TO COT GITTO THE	rack travel mm : 4.00
Rated speed rpm : 1400	Rated speed rpm : 1335
guide sleeve	Tolerance 1/min : + 15
travel mm : 8.95	
Tolerance mm : + 0.25	rack travel mm : 0.50
+	Tolerance mm : + 0.50
Rated speed rpm : 350	Rated speed rpm : 1500
guide sleeve	
travel mm : 1.65	
Tolerance mm : \leftarrow 0.25	
+	LOW IDLE
Rated speed rpm : 650	
guide steeve +	
travel mm : 4.45	control lever
Tolerance mm : + 0.25 +	position degree : 71.0
†	tolerance degree : +- 4.0
ALTER OF FRUE DOCTTON	and all laves
GUIDE SLEEVE POSITION +	control lever
Catad annual mm . 1715	position degree : 15.0
Rated speed rpm : 1315	tolerance degree : +- 4.0
Rack travel in mm: 16.50	Testing:
Tolerance mm : + 1.30	.coting.
Total discount 1	Rated speed rpm : 350
	rack travel mm : 5.90
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : + 0.10

Rated speed rpm	: 700	+ Check
Macca special (pin	. 100	+ speed 1/min : > 80
CRT mm min.	: > 9.00	+ Check
Rated speed rpm	• //25	+ speed 1/min : < 290
kacea speed (biii	. 462	
TORQUE CONTROL		Anancid massure
Rated speed rpm	• 1100	+ Aneroid pressure + hPa : 600
rack travel mm	11.75	Rated speed rpm : 750
rack travel mm Tolerance mm	+ 0.05	+ Del. quantity
		+ cm3/1000 strokes : 102.0
Rated speed rpm	: 750	+ Tolerance
rack travel mm	: 12.05	+ cm3/1000 strokes : +- 2.0
Tolerance mm	: +- 0.05	+ Check tolerance
	070	+ cm3/1000s. : +- 4.0
Rated speed rpm	: 870 : 12.05	A mana 3 d mana ann a
rack travel mm Tolerance mm	12.05	+ Aneroid pressure
loterance mm	: +- 0.05	+ hPa : 600 + Rated speed rpm : 870
Rated speed rpm	• 1000	+ Del. quantity
rack travel mm	: 11.75	cm3/1000 strokes : 104.0
Tolerance mm	: +- 0.05	+ Tolerance
rotor arrot man		+ cm3/1000 strokes : + 2.0
		
ANEROID/ALTITUDE		+ cm3/1000s. : +- 4.0
COMPENSATOR TEST		+
		+ Aneroid pressure
		hPa : - Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 67.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 3.0
SETTING		Rated speed rpm : 500
Dahad amand was	: 500	+ Del. quantity + cm3/1000 strokes : 67.0
Rated speed rpm	: 500	+ cm3/1000 strokes : 67.0 + Tolerance
nack travel mm	• 12.05	- cm3/1000 strokes : +- 1.0
Pressure hPa rack travel mm Tolerance mm	· +- 0.05	Check tolerance
TOTAL GITTE TIME	0.05	+ cm3/1000s. : + 3.0
MEASUREMENT		+
_ • -		
Pressure hPa		+ BREAKAWAY
Rated speed rpm	: 500	†
rack travel mm Tolerance mm	: 10.15 : +- 0.15	Rack travel in mm : 10.70
toterance mm	, - 0.15	Rated speed rpm : 1160
Rated speed rpm	: 500	Tolerance 1/min : +- 5
hacea speed i pili	. ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	TO COLUMN TO THE REAL PROPERTY OF THE PARTY
Pressure hPa	: 430	+
rack travel mm	: 11.50	+
Tolerance mm	: ← 0.10	+ STARTING FUEL DELIVERY
Dana	. 7/0	Dated and d 200
Pressure hPa	: 340	Rated speed rpm : 100 rack travel mm : 20.00
rack travel mm Tolerance mm		rack travel mm : 20.00 Tolerance mm : +- 1.00
rocerance mm	. + 0.03	+ Del. quantity
START CUT-OUT		+ Tolerance
		+ cm3/1000 strokes : + 8.0
Rated speed rpm	: > 100	Check tolerance
Rated speed rpm		+ cm3/1000s. : +- 11.0
•		1

Del. quantity
cm3/1000 strokes : 15.0
Tolerance
cm3/1000 strokes : +- 2.0
Check tolerance
cm3/1000s. : +- 4.5
Spreed
Tolerance
cm3/1000 strokes : 5.5
Check tolerance
cm3/1000s. : 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 08.04.96 Test oil : ISO 4113

Combination No. : 9 400 083 459

Injection pump

Pump designation : PES6A95D12ORS2822 EP type number : 9 400 084 029

Governor

Governer design. : RQV350...1250AB1235

: -2R

Governer no. : 9 420 080 311

Cust. part No. : 3355394

Customer—spec. information Customer : CUMMINS Motor : 6 BT Power KW : 119.3

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. *C : 40
Tolerance *C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : +- 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 2.80
Tolerance mm : + 0.05
Check
tolerance mm : + 0.10

Rack travel in mm: 10.50
Tolerance mm: + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : + 1.50
Difference ° CS : 2.50

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 12.75 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 87.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance cm3/1000s. : +- 3.0

		+ Aneroid pressure	
Spreed		+ hPa	: 600
Tolerance		+ Del. quantity	
cm3/1000 strokes	: 3.5	+ cm3/1000 strokes	: 87.0
		+ Tolerance	
Check tolerance		+ cm3/1000 strokes	: +- 1.0
cm3/1000S.	: 8.0	+ Check tolerance	
		+ cm3/1000s.	: +- 3.0
Del. quantity		+ Spreed	
cm3/1000 strokes	: 17.0	+ Tolerance	
Tolerance		+ cm3/1000 strokes	: 3.5
cm3/1000 strokes	: +- 2.0	+ Check tolerance	
Check tolerance		+ cm3/1000s.	: 8.0
cm3/1000s.	: +- 4.5	†	
Spreed		†	
Tolerance		CONTROL LEVES	
cm3/1000 strokes	; 5.5	CONTROL LEVER	
Check tolerance	. 00	T control laver	
cm3/1000s.	: 9.0	control lever	. 54.0
		+ position degree	
(B) SETTING OF IN	LIECTION DUMP	tolerance degree	: +- 4.0
WITH GOVERNOR	ROEGITOR FORME	T control lever	
MILLI GOVERNON		position degree	• 111 0
		tolerance degree	
GUIDE SLEEVE TRAV	/EL	1 cotto diffice degree	110
		A RATED SPEED	
Rated speed rpm	: 1300	+	
guide sleeve		rack travel mm	: 11.70
travel mm	: 6.85	+ Rated speed rpm	
Tolerance mm	: ← 0.05	+ Tolerance 1/min	: ← 5
		+	
Rated speed rpm	: 1550	+ rack travel mm	: 4.00
guide sleeve		+ Rated speed rpm	
travel mm	: 8.55	† Tolerance 1/min	: +- 15
Tolerance mm	: +- 0.25	†	0.56
	750	rack travel mm	: 0.50
Rated speed rpm	: 350	+ Tolerance mm	: + 0.50
guide sleeve	. 4 /5	+ Rated speed rpm	: 1750
travel mm	: 1.45	Ť	
Tolerance mm	: + 0.25		
Rated speed rpm	: 700	LOW IDLE	
guide sleeve	. , , , , ,	I TOW TOPE	
travel mm	: 4.25	1	
Tolerance mm	: +- 0.25	I control lever	
TOTAL GLICE HIN		position degree	: 69.0
		tolerance degree	
GUIDE SLEEVE POST	TION	+	· · · · · · · · · · · · · · · · · · ·
		+ control lever	
Rated speed rpm	: 1530	position degree	: 14.0
		tolerance degree	
Rack travel in mm		+	
Tolerance mm		+ Testing:	
		+	
		+ Rated speed rpm	
FULL LOAD DELIVER	Y AT FULL LOAD STOP	+ rack travel mm	
		Tolerance mm	: + 0.10
Rated speed rpm	: 1250	+	400
		+ Rated speed rpm	: 100

		1
CRT mm min.	: > 8.50	Del. quantity cm3/1000 strokes : 81.5
Rated speed rpm	: 375	+ Tolerance + cm3/1000 strokes : +- 2.0
		+ Check tolerance + cm3/1000s. : +- 4.0
TORQUE CONTROL		+
Rated speed rpm	: 1250_	+ Aneroid pressure + hPa : -
rack travel mm Tolerance mm	: 12.75 : +- 0.05	+ Rated speed rpm : 500 + Del. quantity
Rated speed rpm		cm3/1000 strokes : 65.5 Tolerance
rack travel mm	: 12.75	+ cm3/1000 strokes : + 1.0
Tolerance mm	: +- 0.05	+ Check tolerance + cm3/1000s. : + 3.0
ANEROID/ALTITUDE		<u> </u>
COMPENSATOR TEST		BREAKAWAY
		Ţ
SETTING		+ Rack travel in mm : 11.70 + Rated speed rpm : 1315
Rated speed rpm Pressure hPa	500 600	Tolerance 1/min : + 5
rack travel mm		I
Tolerance mm		STARTING FUEL DELIVERY
MEASUREMENT		+
Pressure hPa	: -	+ Rated speed rpm : 100 + rack travel mm : 20.00
Rated speed rpm	500	+ Tolerance mm : + 1.00
Rated speed rpm	: 500	+ Del. quantity + cm3/1000 strokes : 122.0
Pressure hPa	: 410	+ Tolerance + cm3/1000 strokes : +- 8.0
rack travel mm		+ Check tolerance
Tolerance mm		cm3/1000s. : + 11.0
Pressure hPa		Ţ
rack travel mm Tolerance mm	: 0.15 : + 0.05	†
toterance nan	. 1- 0.05	LOW IDLE
START CUT-OUT		
	: > 100	cm3/1000 strokes : 17.0 Tolerance
Rated speed rpm Rated speed rpm		+ cm3/1000 strokes : +- 2.0
		Check tolerance
Check speed 1/min	; > 80	+ cm3/1000s. : + 4.5 + Spreed
Check		+ Tolerance
speed 1/min	: < 290	+ cm3/1000 strokes : 5.5 + Check tolerance
P1.194 P2.795 W1.100755.2 W1.14		cm3/1000s. : 9.0
FUEL DELIVERY CHA	HACTERISTICS	‡
Aneroid pressure	. 400	†
hPa Rated speed rpm	: 600 : 700	
naced speed thill	. , , , ,	(

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 08,04.96 Test oil : ISO 4113

Combination No. : 9 400 083 459FA

Injection pump

Pump designation : PES6A95D12ORS2822 EP type number : 9 400 084 029

Governor

Governer design. : RQV350...1250AB1235

: -2R

: 9 420 080 311 Governer no.

Cust. part No. : 3356014-VERSAO-50

Customer-spec. information : CUMMINS Customer Motor : 6 BT

: 128.7 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 Tolerance *C 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 bar Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 26.0 Tolerance bar : + 1.0

Prestroke mm 2.80 : + 0.05Tolerance mm

Check

: + 0.10tolerance mm

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

: 1-5-3-6-2-Firing order

Phasing : 0-60-120-180-240

Beginning of delivery differende

and maximum rack

travel : 10.50 travel Tolerance mm Tolerance mm : + 1.50 Difference °CS : 2.50

BASIC SETTING

Rated speed rpm : 1300

13.75 Rack travel in mm : : +- 0.05 Tolerance mm

Del. quantity cm3/1000 strokes : 96.5

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

: +- 3.0 cm3'1000s.

	+ Aneroid pressure
Spreed	hPa : 800
Tolerance	+ Del. quantity
cm3/1000 strokes : 3.5	+ cm3/1000 strokes : 96.5
	Tolerance
Check tolerance	+ cm3/1000 strokes : +- 1.0
cm3/1000s. : 8.0	- Check tolerance
	+ cm3/1000s. : + 3.0
Del. quantity	Spreed
cm3/1000 strokes : 18.5	+ Tolerance
Tolerance	+ cm3/1000 strokes : 3.5
cm3/1000 strokes : +- 2.0	Check tolerance
Check tolerance	+ cm3/1000s. : 8.0
cm3/1000s. : +- 4.5	I
Spreed	I
Tolerance	
	T CONTROL LEVER
cm3/1000 strokes : 5.5 Check tolerance	I CONTROL LEVER
cm3/1000s. : 9.0	T control lever
(IID/ (UUU) 7.0	position degree : 57.0
	tolerance degree : + 4.0
(B) SETTING OF INJECTION PUMP	T coterance degree : T 4.0
WITH GOVERNOR	t control lever
MITTE GOAEVIAOK	
	+ position degree : 112.0
CHIDE SLEEVE TRAVEL	tolerance degree : + 4.0
GUIDE SLEEVE TRAVEL	T RATED SPEED
Rated speed rpm : 1300	T KATEU OFECU
The second secon	rack travel mm : 12.70
guide sleeve travel mm : 6.85	
Tolerance mm : + 0.05	Tolerance 1/min : +- 5
Dated and all numbers of AFFO	7
Rated speed rpm : 1550	rack travel mm : 4.00
guide sleeve	+ Rated speed rpm : 1580
travel mm : 8.55	Tolerance 1/min : + 15
Tolerance mm : +- 0.25	T mode through min a 0.50
And an and mark to 200	+ rack travel mm : 0.50
Rated speed rpm : 350	+ Tolerance mm : + 0.50
guide sleeve	Rated speed rpm : 1800
travel mm : 1.45	Ť
Tolerance mm : ÷ 0.25	†
Dahad annud non a 700	I OU TOLE
Rated speed rpm : 700	+ LOW IDLE
guide steeve travel mm : 4.25	T
	T company laws
Tolerance mm : + 0.25	+ control lever
	position degree : 69.0
CUTAE OF FELE PARTITION	tolerance degree : + 4.0
GUIDE SLEEVE POSITION	T control laves
Debad around mar a 457A	+ control lever
Rated speed rpm : 1530	position degree : 13.0
D. J. Ann. J. Sn. ma. A. FD	tolerance degree : +- 4.0
Rack travel in mm: 16.50	Tanking.
Tolerance mm : + 1.30	+ Testing:
	† Bahadanadana 750
	+ Rated speed rpm : 350
FULL LOAD DELIVERY AT FULL LOAD STOP	+ rack travel mm : 6.20
	Tolerance mm : + 0.10
Rated speed rpm : 1300	+
	+ Rated speed rpm : 100

222	. 0.50	† Del. quantity
RT mm min.	: > 8.50	cm3/1000 strokes : 95.0 Tolerance
ated speed rpm	: 375	+ cm3/1000 strokes : +- 2.0
		+ Check tolerance
RQUE CONTROL		
	. 4700	+ Aneroid pressure
lated speed rpm lack travel mm		+ hPa : - + Rated speed rpm : 500
folerance mm	: +- 0.05	Del. quantity
		+ cm3/1000 strokes : 65.5
Rated speed rpm	: 800	+ Tolerance
rack travel mm Folerance mm		cm3/1000 strokes : + 1.0 check tolerance
Oceranice min	. , . 0.05	cm3/1000s. : + 3.0
NEROID/ALTITUDE		
OMPENSATOR TEST	•	BREAKAWAY
ETTING		+ Rack travel in mm : 12.70
		+ Rated speed rpm : 1345
Rated speed rpm	: 500	+ Tolerance 1/min : + 5
ressure hPa ack travel mm	800 13.75	†
ack travel mm olerance mm		I
		STARTING FUEL DELIVERY
EASUREMENT		Rated speed rpm : 100
Pressure hPa	: -	rack travel mm : 20.00
lated speed rpm	500	+ Tolerance mm : + 1.00
		Del. quantity
Rated speed rpm	: 500	+ cm3/1000 strokes : 127.0 + Tolerance
Pressure hPa	: 540	+ cm3/1000 strokes : + 8.0
rack travel mm	1.55	Check tolerance
olerance mm	: +- 0.15	+ cm3/1000s. : + 11.0
Pressure hPa	: 350	Ţ
ack travel mm	: 0.50	+
olerance mm	: ← 0.10	LOW IDLE
START CUT-OUT		+ Del. quantity + cm3/1000 strokes : 18.5
ated speed rpm	: > 100	Tolerance
lated speed rpm		+ cm3/1000 strokes : + 2.0
		- Check tolerance
heck	. > 00	+ cm3/1000s. : + 4.5
peed 1/min heck	: > 80	Spreed Tolerance
neck peed 1/min	: < 290	+ cm3/1000 strokes : 5.5
peed (1001)	2,0	+ Check tolerance
		+ cm3/1000s. : 9.0
UEL DELIVERY CHA	ARACTERISTICS	+
	ARACTERISTICS	<u>‡</u>
UEL DELIVERY CHA	ARACTERISTICS: 800	‡

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 08.04.96 Edition : ISO 4113 Test oil

Combination No. : 9 400 085 224

Injection pump

Pump designation : PES6A90D320RS2605 EP type number : 9 400 083 078

Governor

Governer design. : RSV350...1050A1C2029

: -2R

Governer no. : 9 420 083 266

Cust. part No. :

Customer-spec. information : MWM Customer

: TD 229-6 Motor

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : +- 2.0 Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 bar Tolerance bar

: 1 680 750 003 Test lines

Outside diameter : 6.0 x inside diameter : 2.0

600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm 2.25 : + 0.05Tolerance mm

Check

: + 0.10tolerance mm

Rack travel in mm: 10.50 : +- 1.50 Tolerance mm

: 1-5-3-6-2-Firing order

: 4

Phasing : 0-60-120-180-240

: -300

Beginning of delivery differende

and maximum rack

travel 10.50 : +- 1.50 Tolerance mm Difference ° CS

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm : 8.25 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 53.5

Tolerance

cm3/1000 strokes : + 0.5

Check tolerance

cm3/1000s. : +- 2.5

	1
Spreed	t control lever
Tolerance	position degree : 62.0
cm3/1000 strokes : 3.0	+ tolerance degree : +- 4.0
	+
Check tolerance	+ control lever
cm3/1000s. : 7.0	position degree : 112.0
Dal supphitus	tolerance degree : +- 4.0
Del. quantity cm3/1000 strokes : 9.5	RATED SPEED
Tolerance	T MALLO SILLO
cm3/1000 strokes : + 2.0	rack travel mm : 7.20
Check tolerance	Rated speed rpm : 1075
cm3/1000s. : +- 4.0	+ Tolerance 1/min : + 5
Spreed	+
Tolerance	+ rack travel mm : 4.00
cm3/1000 strokes : 4.5	+ Rated speed rpm : 1105
Check tolerance cm3/1000s. : 7.0	Tolerance 1/min : +- 15
cm3/1000s. : 7.0	rack travel mm : 1.00
	Tolerance mm : + 0.70
(B) SETTING OF INJECTION PUMP	Rated speed rpm : 1250
WITH GOVERNOR	
	+
ALTER ALERINE BACTEVAL	+ LOW IDLE
GUIDE SLEEVE POSITION	†
Rated speed rpm : 800	t control lever
hated speed (bill . odd	position degree : 83.0
Rack travel in mm : 0.65	+ tolerance degree : + 4.0
Toterance mm : + 0.35	+
	+ control lever
governor spring	+ position degree : 33.0
pre-tension	tolerance degree : + 4.0
click setting x : 6.25	Continue maint u/out human amina
	Setting point w/out bumper spring
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 350
TOLL FOUND DEFINENT AT FOLL FOUND CLOS	+ rack travel mm : 6.00
Rated speed rpm : 1050	-
Aneroid pressure	+ Testing:
hPa : -	+
Del. quantity	+ Rated speed rpm : 350
cm3/1000 strokes : 53.5	rack travel mm : 6.50
Tolerance	Tolerance mm : + 0.10
cm3/1000 strokes : +- 0.5 Check tolerance	rack travel mm : 2.00
cm3/1000s. : + 2.5	+ Rated speed rpm : 555
Spreed	+ Tolerance 1/min : + 30
Tolerance	+
cm3/1000 strokes : 3.0	+ Rated speed rpm : 100
Check tolerance	+
cm3/1000s. : 7.0	+ CRT mm min. : > 19.00
	†
	+ TORQUE CONTROL
CONTROL LEVER	T TORQUE CONTROL
CONTINUE FEAFIX	Rated speed rpm : 1050
	rack travel mm : 8.25
	The state of the s

Tolerance mm	: +- 0.05
Rated speed rpm	: 500
rack travel mm	: 9.05
Tolerance mm	: ← 0.05
Rated speed rpm	: 700
rack travel mm	: 9.00
Tolerance mm	: ← 0.10
Rated speed rpm	: 875
rack travel mm	: 8.55
Tolerance mm	: + 0.15

FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure	
hPa	9 vom
Rated speed rpm	: 500
Del. quantity	
cm3/1000 strokes	: 48.0
Tolerance	
cm3/1000 strokes	: + 1.5
Check tolerance	
cm3/1000s.	: +- 3.5
Aneroid pressure	
hPa	-
Rated speed rpm	: 700
Del. quantity	
cm3/1000 strokes	: 52.5
Tolerance	. 4 *
cm3/1000 strokes	: ← 1.5
Check tolerance	: +- 3.5
cm3/1000s.	; T= 3.3

BK	EAK	AW	AY

Rack travel in mm	:	7.20
Rated speed rpm	•	1075
Tolerance 1/min	:	← 5

STARTING FUEL DELIVERY

Rated speed rpm	:		100
rack travel mm	:		20.00
Tolerance mm	:	+-	1.00

LOW IDLE

Del. quantity		
cm3/1000 strokes	:	9.5
Tolerance		
cm3/1000 strokes	: +-	2.0
Check tolerance		
cm3/1000s.	: +	4.0
Spreed		
Tolerance		
cm3/1000 strokes	:	4.5
Check tolerance		
cm3/1000s.	:	7.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 08.04.96 Edition : ISO 4113 Test oil

Combination No. : 9 400 085 239

Injection pump

Pump designation : PES6A90D320RS2701 EP type number · 9 400 083 094

Governor

Governer design. : RSV350...1150A2C2097

: -1R

: 9 420 083 267 Governer no.

Cust. part No. :

Customer-spec. information Customer : MWM Motor : TD229-6

Power KW : 106.7

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar 173.5 : + 1.5 Tolerance bar

: 1 680 750 003 Test lines

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

2.70 Prestroke mm Tolerance mm : +- 0.05

Check

: +- 0.10 tolerance mm

Rack travel in mm : 10.50 : + 1.50 Tolerance mm

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300

Beginning of delivery differende

and maximum rack

10.50 travel : + 1.50Tolerance mm Difference ° CS 4.50

BASIC SETTING

Rated speed rpm : 1150

Rack travel in mm : 10.85 Tolerance mm : \leftarrow 0.05

Del. quantity cm3/1000 strokes :

81.5

Tolerance

cm3/1000 strokes : +- 0.5

Check tolerance

cm3/1000S.

	+
Spreed	control lever
Tolerance	+ position degree : 95.0
cm3/1000 strokes : 3.0	+ tolerance degree : +- 4.0
The state of the s	†
Check tolerance	+ RATED SPEED
cm3/1000s. : 7.0	
No. 1 marsh 2 de .	+ rack travel mm : 9.80
Del. quantity	+ Rated speed rpm : 1200
cm3/1000 strokes : 11.5	Tolerance 1/min : + 5
Tolerance cm3/1000 strokes : +- 2.0	T mode through my
Check tolerance	+ rack travel mm : 4.00 + Rated speed rpm : 1255
cm3/1000s. : +- 4.0	Tolerance 1/min : + 15
Spreed	T Total and The Thirty . 4- 15
Tolerance	rack travel mm : 1.00
cm3/1000 strokes : 4.5	+ Tolerance mm : + 0.70
Check tolerance	+ Rated speed rpm : 1400
cm3/1000s. : 7.0	The state of the s
· · · · · · · · · · · · · · · · · · ·	+
(B) SETTING OF INJECTION PUMP	+ LOW IDLE
WITH GOVERNOR	+
	†
	+ control lever
ALITAR ALPRID AASTTAL	+ position degree : 70.0
GUIDE SLEEVE POSITION	tolerance degree : + 4.0
Rated speed rpm : 800	† Setting point w/out bumper spring
Marca speed (Mill 8 DOD	L second bout moor pumber shilling
Rack travel in mm : 0.65	+ Rated speed rpm : 350
Tolerance mm : + 0.35	+ rack travel mm : 5.50
	+
governor spring	+ Testing:
pre-tension	+
click setting x : 3.50	+ Rated speed rpm : 350
	+ rack travel mm : 6.00
	† Tolerance mm : ← 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	†
Data I am ad am	+ rack travel mm : 2.00
Rated speed rpm : 1150	+ Rated speed rpm : 590
Aneroid pressure	Tolerance 1/min : + 30
hPa : -	Rated speed rpm : 100
Del. quantity cm3/1000 strokes : 81.5	+ Rated speed rpm : 100
Tolerance	T CRT mm min. : > 19.00
cm3/1000 strokes : +- 0.5	17.00
Check tolerance	
cm3/1000s. : +- 2.5	TORQUE CONTROL
Spreed	1 011 1 0 0 11 1 1 1 1 1 1 1 1 1 1 1 1
Tolerance	+ Rated speed rpm : 1150
cm3/1000 strokes : 3.0	rack travel mm : 10.85
Check tolerance	+ Tolerance mm : +- 0.05
cm3/1000s. : 7.0	+
	Rated speed rpm : 500
	rack travel mm : 11.45
	+ Tolerance mm : + 0.05
CONTROL LEVER	+
	+ Rated speed rpm : 750
	rack travel mm : 11.25

Tolerance mm : +- 0.05 850 Rated speed rpm 11.05 rack travel mm Tolerance mm : +- 0.05 FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa 500 Rated speed rpm Del. quantity cm3/1000 strokes : 77.5 Tolerance cm3/1000 strokes 1.5 Check tolerance cm3/1000s. 3.5 Aneroid pressure hPa 750 Rated speed rpm Del. quantity cm3/1000 strokes : 79.0 Tolerance 1.5 cm3/1000 strokes : +-Check tolerance cm3/1000s. 3.5 **BREAKAWAY** 9.80 Rack travel in mm: Rated speed rpm : 1200 Tolerance 1/min STARTING FUEL DELIVERY Rated speed rpm 100 rack travel mm 20.00 Tolerance mm : + 1.00 Del. quantity cm3/1000 strokes : 147.0 Tolerance cm3/1000 strokes : +-8.0 Check tolerance cm3/1000s. : +- 11.0

Del. quantity		
cm3/1000 strokes	:	11.5
Tolerance		
cm3/1000 strokes	: +-	2.0
Check tolerance		
cm3/1000s.	: +-	4.0
Spreed		
Tolerance		
cm3/1000 strokes	:	4.5
Check tolerance		
cm3/1000s.	:	7.0

End of test specification sheet

LOW IDLE

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 08.04.96 Test oil : ISO 4113

Combination No. : 9 400 085 243

Injection pump

Pump designation : PES4A80D320RS1282-1

EP type number : 9 400 083 097

Governor

Governer design. : RS350/1500A2C2073

: -2R

Governer no. : 9 420 083 269

Cust. part No. :

Customer—spec. information Customer : MWM Motor : D 229-4

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 003

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.70
Tolerance mm : + 0.05
Check

Lneck

tolerance mm : +- 0.10

Rack travel in mm : 10.50Tolerance mm : +- 1.50

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Tolerance : \leftarrow 0.50

Check

tolerance °NW : +- 0.75

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : + 1.50
Difference ° CS : 4.50

BASIC SETTING

Rated speed rpm : 1500

Rack travel in mm : 9.25
Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 58.5

Tolerance

cm3/1000 strokes : \leftarrow 0.5

: 2.5 : 4.0	Rated speed rpm rack travel mm Tolerance mm Rated speed rpm rack travel mm	
: 2.5	+ rack travel mm	: 500 : 10.65
: 2.5	+ rack travel mm	: 500 : 10.65
	Dated enood non	
210		
	+ Tolerance mm	: +- 0.05
: +- 2.0	+ rack travel mm	: 9.25
: +- 0.5	Dated aread are	: 1500
	TORQUE CONTROL	
: 58.5	I	
: -	+ CRT mm max.	: < 3.20
: 1500	+ Rated speed rpm	: 550
	+	
V AT FULL LOAD STOP	- +	: > 6.80
: 5.50	Rated speed rom	: 250
	Tolerance 1/min	: +- 30
		: 460
: U.35	t nack fraval mm	: 4.00
0.65	+ Tolerance mm	: +- 0.10
	+ rack travel mm	: 6.10
: 800	Rated speed rom	: 350
TION	Testing:	
	tolerance degree	: + 4.0
	control lever	
JECTION PUMP	Ī	
· • • •	LOW IDLE	
: 6.0	I	
: 4.0	1	
: ← 5.5		: 1.00 : + 0.70
	+	
: + 1.5		
: 9.0	rack travel mm	: 4.00 : 1640
	+	
: 4.0		
	Track travel mm	: 8.20
: 2.5	RATED SPEED	
	+	: +- 4.0
: +- 2.0	control lever	
	+	
	: 2.5 : 4.0 : 9.0 : + 1.5 : + 3.5 : 4.0 : 6.0 UECTION PUMP TION : 800 : 0.65 : + 0.35 : 5.50 Y AT FULL LOAD STOP : 1500 : - : 58.5	position degree tolerance degree: 2.5 RATED SPEED rack travel mm Rated speed rpm Tolerance 1/min 9.0 rack travel mm Rated speed rpm Tolerance 1/min 1. 1.5 rack travel mm Rated speed rpm Tolerance mm Rated speed rpm 2. 4.0 rack travel mm Tolerance mm Rated speed rpm 3.5 rack travel mm Tolerance mm Rated speed rpm 1. 4.0 rack travel mm Tolerance degree tolerance degree tolerance degree tolerance mm Tolerance mm 2. 0.65 rack travel mm Tolerance mm 3. 5.50 rack travel mm Tolerance 1/min 4.0 rack travel mm Tolerance 1/min Atted speed rpm Tolerance 1/min Atted speed rpm Tolerance 1/min CRT mm min. Rated speed rpm CRT mm min. Rated speed rpm CRT mm max. TORQUE CONTROL Rated speed rpm

Rated speed rpm : 1200 rack travel mm **3** 9.65

Tolerance mm : 4- 0.15

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa Rated speed rpm 500 Del, quantity

cm3/1000 strokes : 59.5

Tolerance

cm3/1000 strokes : +- 1.5

Check tolerance

cm3/1000s. : + 3.0

Aneroid pressure

hPa 900 Rated speed rpm Del. quantity

cm3/1000 strokes : 64.0

Tolerance

cm3/1000 strokes : +- 1.5

Check tolerance

3.0 cm3/1000s.

BREAKAWAY

Rack travel in mm : 8.20 Rated speed rpm : 1585 Tolerance 1/min : +-

STARTING FUEL DELIVERY

100 Rated speed rpm : 20.00 rack travel mm : Tolerance mm : + 1.00

LOW IDLE

Del. quantity

cm3/1000 strokes : 9.0

Tolerance

cm3/1000 strokes : +-1.5

Check tolerance

: +cm3/1000s. 3.5

Spreed

Tolerance

cm3/1000 strokes : 4.0

Check tolerance

cm3/1000s. 6.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 11,09,95 Edition Test oil : ISO 4113

Combination No. : 9 400 085 254

Injection pump

Pump designation : PES6A90D410RS2293 : 0 410 896 031 EP type number

Governor

: RSV500...900A0B2211 Governer design.

: -1L

: 9 420 083 204 Governer no.

Cust. part No. :

Customer-spec. information Customer : MBB

: OM 352 (A) Motor

TEST BENCH REQUIREMENTS

Inlet line : 2

Test oil inlet

temp. °C 40 Tolerance *C : + 2.0

Overflow valve : 1 417 413 000

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar 173.5 : +- 1.5 Tolerance bar

Test lines : 1 680 750 014

Outside diameter : 6.0 x inside diameter : 2.0 x length mm : പ്രവ

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +

Prestroke mm 2.20 Tolerance mm : + 0.05Check tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300

BASIC SETTING

Rated speed rpm 880

Rack travel in mm: 10.05 : +- 0.05 Tolerance mm

Del. quantity cm3/1000 strokes : 57.5

Tolerance

cm3/1000 strokes : +-0.5

Check tolerance cm3/1000s.

: +-2.5

Spreed Tolerance

cm3/1000 strokes : 3.0

Check tolerance cm3/1000s.

5.0

Dat mination	
Del. quantity cm3/1000 strokes	: 12.0
Tolerance	
cm3/1000 strokes	: + 2.0
Check tolerance cm3/1000s.	: +- 4.0
Spreed	4.0
Tolerance	
cm3/1000 strokes	: 2.5
Check tolerance cm3/1000s.	: 4,5
CIID7 (0003.	• 4.5
(B) SETTING OF IN WITH GOVERNOR	JECTION PUMP
GUIDE SLEEVE POSI	TION
Rated speed rpm	: 800
Rack travel in mm	: 0.65
Tolerance mm	: + 0.35
governor spring	
pre-tension	
click setting x	: 4.00
FULL LOAD DELIVER	Y AT FULL LOAD STOP
Rated speed rpm	: 880
Aneroid pressure hPa	: -
Del. quantity	•
cm3/1000 strokes	57.5
Tolerance	: +- 0.5
cm3/1000 strokes Check tolerance	: 0.5
cm3/1000s.	: +- 2.5
Spreed	
Tolerance cm3/1000 strokes	: 3.0
Check tolerance	: 3.0
cm3/1000s.	: 5.0
CONTROL LEVER	
control lever	
	: 87.0
position degree tolerance degree	: ← 4.0
RATED SPEED	
rack travel mm	: 9.00
rack travel mm Rated speed rpm	: 9.00 : 908

Tolerance 1/min	: + 3
rack travel mm Rated speed rpm Tolerance 1/min	: 4.00 : 953 : ← 3
rack travel mm Tolerance mm Rated speed rpm	: 1.00 : + 0.70 : 1100
LOW IDLE	
control lever position degree tolerance degree	: 75.0 : +- 4.0
Setting point w/d	out bumper spring
Rated speed rpm rack travel mm	: 500 : 6.00
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 500 : 6.50 : + 0.10
rack travel mm Rated speed rpm Tolerance 1/min	: 2.00 : 565 : + 30
Rated speed rpm	: 100
CRT mm min.	: > 19.00
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 880 : 10.05 : +- 0.05
Rated speed rpm rack travel mm Tolerance mm	: 500 : 10.10 : + 0.10
Rated speed rpm rack travel mm Tolerance mm	: 400 : 11.50 : + 0.10

Rack travel in mm: 9.00
Rated speed rpm: 908
Tolerance 1/min: + 3

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 14.50 Tolerance mm : ÷ 0.30

LOW IDLE

Del. quantity cm3/1000 strokes : 12.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.0 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. 4.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 08.04.96 Test oil : ISO 4113

Combination No. : 9 400 085 255

Injection pump

Pump designation : PES5A80D410RS2526 EP type number : 9 400 093 007

Governor

Governer design. : RS325/1400A0C2212L Governer no. : 9 420 083 295

Cust. part No. :

Customer-spec. information

Customer : DEUTZ ARGENTINA

Motor : F5L913

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 003

Outside diameter : 6.0

x inside diameter: 2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 1.95
Tolerance mm : + 0.05
Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-3-5-4-2

Phasing : 0-72-144-216-288

BASIC SETTING

Rated speed rpm : 1400

Rack travel in mm : 11.55 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 66.0

Tolerance

cm3/1000 strokes : \leftarrow 0.5

Check tolerance

cm3/1000s. : +- 2.0

Spreed

Tolerance

cm3/1000 strokes : 2.5

Check tolerance

cm3/1000s. : 4.0

Del. quantity

cm3/1000 strokes : 11.0

Tolerance +	Rated speed rpm : 1515
cm3/1000 strokes : +- 1.5 Check tolerance	Tolerance 1/min : +- 15
cm3/1000s. : + 3.5	rack travel mm : 1.00
Spreed +	Tolerance mm : +- 0.70 Rated speed rpm : 1650
cm3/1000 strokes : 4.0	
cm3/1000s. : 6.0	LOW IDLE
(B) SETTING OF INJECTION PUMP	
WITH GOVERNOR	control lever
‡	position degree : 70.0 tolerance degree : +- 4.0
GUIDE SLEEVE POSITION	Testing:
Rated speed rpm : 800	Rated speed rpm : 325
Rack travel in mm: 0.65	rack travel mm : 8.50 Tolerance mm : + 0.10
Tolerance mm : + 0.35	rack travel mm : 6.00
governor spring pre-tension	Rated speed rpm : 420 Tolerance 1/min : + 30
click setting x : 4.00	
FULL LOAD DELIVERY AT FULL LOAD STOP	CRT mm min. :> 8.80
Rated speed rpm : 1400 +	Rated speed rpm : 550
hPa : - + Del. quantity +	CRT mm max. : < 4.40
cm3/1000 strokes : 66.0	TOPOUR CONTROL
Tolerance cm3/1000 strokes : +- 0.5	TORQUE CONTROL
Check tolerance + 2.0 +	Rated speed rpm : 1400 rack travel mm : 11.55
Spreed Tolerance	Tolerance mm : + 0.05
cm3/1000 strokes : 2.5 Check tolerance	Rated speed rpm : 500 rack travel mm : 12.25
cm3/1000s. : 4.0	Tolerance mm : +- 0.05
‡	Rated speed rpm : 1100
CONTROL LEVER	rack travel mm : 11.95 Tolerance mm : + 0.15
control lever	
position degree : 113.0 tolerance degree : + 4.0	
+	FIRE DEL TUEDA GUADA DE DE TENTO DE COMO
RATED SPEED	FUEL DELIVERY CHARACTERISTICS
rack travel mm : 10.50 + Rated speed rpm : 1445	Aneroid pressure hPa : -
Tolerance 1/min : + 5	Rated speed rpm : 500 Del. quantity
rack travel mm : 4.00	cm3/1000 strokes : 56.5

Tolerance cm3/1000 strokes : +- 1.5 Check tolerance cm3/1000s. : +- 3.0 Aneroid pressure hPa : --

hPa : Rated speed rpm : 1100
Del. quantity
cm3/1000 strokes : 63.0

Tolerance cm3/1000 strokes : + 1.5

Check tolerance

cm3/1000s. : +- 3.0

BREAKAWAY

Rack travel in mm : 10.50
Rated speed rpm : 1445
Tolerance 1/min : +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : + 1.00

LOW IDLE

Del. quantity cm3/1000 strokes : 11.0 Tolerance cm3/1000 strokes : +-1.5 Check tolerance cm3/1000s. 3.5 Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. 6.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 09,04,96 : ISO 4113

Combination No. : 9 400 085 301

Injection pump

Pump designation : PES6A85D410RS2415 EP type number : 0 410 886 907

Governor

Governer design. : RQV350...1325AB1234

: -1L

Governer no.

: 9 420 080 259

Cust. part No. :

Customer-spec. information

Customer : DEUTZ-ARGENTINA

Motor

: BF 6L 913

Power KW : 116.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : + 2.0 Tolerance °C

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 bar

Tolerance bar : +- 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 32.0 Tolerance bar : +- 1.0

: 1.95 Prestroke mm : +- 0.05 Tolerance mm Check tolerance mm : + - 0.10

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

: 1-5-3-6-2-Firing order

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 1325

Rack travel in mm: 11.15 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 77.5

Tolerance cm3/1000 strokes : + 0.5

Check tolerance cm3/1000s. : +- 2.5

Spreed Tolerance

cm3/1000 strokes :

Check tolerance cm3/1000s. :

7.0

3.0

1	Dal mandal.
Dal minutation	Del. quantity
Del. quantity	cm3/1000 strokes : 77.5
cm3/1000 strokes : 16.0	Tolerance
Tolerance	cm3/1000 strokes : +- 0.5
cm3/1000 strokes : + 2.0 +	Check tolerance
Check tolerance	cm3/1000s. : +- 2.5
cm3/1000s. : +- 4.0 +	Spreed
Spreed	Tolerance
Tolerance	cm3/1000 strokes : 3.0
cm3/1000 strokes : 4.5	Check tolerance
Check tolerance	cm3/1000s. : 7.0
cm3/1000s. : 7.0	
1	
\mathbf{I}	
(B) SETTING OF INJECTION PUMP	CONTROL LEVER
WITH GOVERNOR	CONTROL ECAEN
WITH GOVERNOR	control lever
T	
CUITAGE OF CENTER TO A UPI	position degree : 61.0
GUIDE SLEEVE TRAVEL	tolerance degree : +- 4.0
†	
Rated speed rpm : 1400 +	control lever
guide steeve +	position degree : 116.0
travel mm : 8.90	tolerance degree : +- 4.0
Tolerance mm : + 0.10 +	
+	RATED SPEED
Rated speed rpm : 900 +	
guide sleeve	rack travel mm : 10.10
travel mm : 4.95 +	Rated speed rpm : 1370
Tolerance mm : +- 0.25	Tolerance 1/min : + 5
Rated speed rpm : 300	rack travel mm : 4.00
guide sleeve	Rated speed rpm : 1470
travel mm : 0.75	Tolerance 1/min : +- 15
Tolerance mm : + 0.25	roterance mining.
Toterance imi : +- U.25	rack travel mm : 0.50
Datad anad mm . (00	
Rated speed rpm : 600 +	Tolerance mm : + 0.50
guide sleeve +	Rated speed rpm : 1600
travel mm : 2.85	
Tolerance mm : + 0.25	
+	
Rated speed rpm : 1200 +	LOW IDLE
guide steeve +	
travel mm : 6.95 +	
Tolerance mm : + 0.25 +	control lever
+	position degree : 70.0
<u> </u>	tolerance degree : +- 4.0
GUIDE SLEEVE POSITION +	
	control lever
Rated speed rpm : 1350	position degree : 15.0
1.0000 00000 18111 1 1000	tolerance degree : +- 4.0
Rack travel in mm: 16.50	toter affect degree 410
Tolerance mm : + 1.30	Testing:
Toterance mm : T 1.50	resumy:
Ť	Dated around the 250
FINE LOAD DELYMENT AT FINE LOAD OTOD	Rated speed rpm : 350
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 8.00
+	Tolerance mm : + 0.10
Rated speed rpm : 1325 +	
Aneroid pressure +	Rated speed rpm : 100
hPa : - +	
+	CRT mm min. :> 9.00

Rated speed rpm	: 450	Del. quantity cm3/1000 strokes : 77.5 Tolerance cm3/1000 strokes : +- 1.5
TORQUE CONTROL		+ Check tolerance + cm3/1000s. :+ 3.5
Rated speed rpm rack travel mm Tolerance mm	: 11.15	BREAKAWAY
Rated speed rpm rack travel mm Tolerance mm	: 12.35 : ← 0.05	Rack travel in mm: 10.10 Rated speed rpm: 1370 Tolerance 1/min: +- 5
Rated speed rpm rack travel mm Tolerance mm	: 800 : 12.25 : +- 0.15	+
Rated speed rpm	• 1100	+ STARTING FUEL DELIVERY
rack travel mm Tolerance mm	11.60	Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : + 1.00
START CUT-OUT		
Rated speed rpm Rated speed rpm	: > 100 : < 300	LOW IDLE
Check speed 1/min Check speed 1/min		+ Del. quantity + cm3/1000 strokes : 16.0 + Tolerance + cm3/1000 strokes : + 2.0 + Check tolerance + cm3/1000s. : + 4.0
FUEL DELIVERY CHA	ARACTERISTICS	Spreed Tolerance
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes	: - : 500 : 75.0	cm3/1000 strokes : 4.5 Check tolerance cm3/1000s. : 7.0
Tolerance		+
cm3/1000 strokes Check tolerance cm3/1000s.	: + 1.5 : + 3.5	End of test specification sheet
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure	: - : 800 : 79.0 : + 1.5 : + 3.5	
hPa Rated speed rpm	1100	‡

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 09.04.96 Test oil : ISO 4113

Combination No. : 9 400 085 302

Injection pump

Pump designation : PES6A90D320RS2767 EP type number : 9 400 084 017

Governor

Governer design. : RSV300...1400A0C2207

: -2R

Governer no. : 9 420 083 299

Cust. part No. : 905200569079

Customer-spec. information

Customer : MWM

Motor : TBD 229-6 EC

Power KW : 185.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

G03

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.55
Tolerance mm : + 0.05
Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : + 1.50
Difference ° CS : 3.50

BASIC SETTING

Rated speed rpm : 1400

Rack travel in mm: 14.35
Tolerance mm: +- 0.05

Del. quantity

cm3/1000 strokes : 120.5

Tolerance

cm3/1000 strokes : +- 0.5

Check tolerance

cm3/1000s. : +- 2.5

	+
Spreed	+ control lever
Tolerance	position degree : 116.0
cm3/1000 strokes : 3.0	+ tolerance degree : + 4.0
	- Cotto and acgree 1
Check tolerance	A RATED SPEED
cm3/1000s. : 7.0	T WATER OF EED
(1107 (000))	rack travel mm : 13.30
Del. quantity	Rated speed rpm : 1445
cm3/1000 strokes : 15.0	
	+ Tolerance 1/min : +- 5
Tolerance	1
cm3/1000 strokes : +- 2.0	rack travel mm : 4.00
Check tolerance	Rated speed rpm : 1555
cm3/1000s. : +- 4.0	+ Tolerance 1/min : +- 15
Spreed	+
Tolerance	+ rack travel mm : 0.85
cm3/1000 strokes : 4.5	+ Tolerance mm : + 0.55
Check tolerance	+ Rated speed rpm : 1700
cm3/1000s. : 7.0	+
	+
(B) SETTING OF INJECTION PUMP	+ LOW IDLE
WITH GOVERNOR	+
	+
	+ control lever
	position degree : 80.0
GUIDE SLEEVE POSITION	tolerance degree : +- 4.0
	+
Rated speed rpm : 800	Setting point w/out bumper spring
	+
Rack travel in mm : 0.65	+ Rated speed rpm : 300
Tolerance mm : + 0.35	+ rack travel mm : 7.50
	+
governor spring	† Testing:
pre-tension	+
click setting x : 4.25	+ Rated speed rpm : 300
	+ rack travel mm : 8.00
	+ Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	
	rack travel mm : 2.00
Rated speed rpm : 1400	Rated speed rpm : 485
Aneroid pressure	Tolerance 1/min : + 30
hPa : -	1000141100 17111111 1 1 00
Del. quantity	Rated speed rpm : 100
400 0	A rated speed thin . 100
	T CRT mm min. :> 19.00
Tolerance cm3/1000 strokes : + 0.5	T (7.00
*****	T
Check tolerance	TOPOUT CONTROL
cm3/1000s. : + 2.5	TORQUE CONTROL
Spreed	T Panad annual annual Atan
Tolerance	+ Rated speed rpm : 1400
cm3/1000 strokes : 3.0	rack travel mm : 14.35
Check tolerance	† Tolerance mm : + 0.05
cm3/1000s. : 7.0	†
	+ Rated speed rpm : 500
	+ rack travel mm : 14.40
	+ Tolerance mm : + 0.10
CONTROL LEVER	+
	Rated speed rpm : 350
	+ rack travel mm : 15.80
	•

Tolerance mm: +-0.30

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa Rated speed rpm 500

Del. quantity

cm3/1000 strokes : 109.0

Tolerance

cm3/1000 strokes : + 1.5

Check tolerance cm3/1000s. 3.5

BREAKAWAY

13.30 Rack travel in mm : Rated speed rpm : 1445 Tolerance 1/min : + 5

STARTING FUEL DELIVERY

100 Rated speed rpm rack travel mm 20.00 : + 1.00 Tolerance mm

LOW IDLE

Del. quantity cm3/1000 strokes : 15.0

Tolerance

2.0 cm3/1000 strokes : +-

Check tolerance

cm3/1000s. : +- 4.0

Spreed

Tolerance

cm3/1000 strokes : 4.5

Check tolerance

cm3/1000s. 7.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 09.04.96 : ISO 4113

Combination No. : 9 400 085 306

Injection pump

Pump designation : PES6A90D410RS2596

EP type number : 0 410 896 073

Governor

Governer design. : RQV300...1400AB1066

: -7L

Governer no.

: 9 420 080 267

Cust. part No. : 0180742402

Customer-spec. information Customer : MBB

Motor

Power KW

: 0M352A : 121.4

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C

Tolerance °C

: +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

173.5

Tolerance bar

: +- 1.5

Test lines

: 1 680 750 014

Outside diameter : 6.0

G06

x inside diameter : 2.0

x length mm :

600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm 2.05 : + 0.05 Tolerance mm

Check

: + 0.10tolerance mm

Rack travel in mm: 10.50

Tolerance mm : + 1.50

: 1-5-3-6-2-Firing order

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 1400

Rack travel in mm: 12.45

Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 78.0

Tolerance

cm3/1000 strokes : + 0.5

Check tolerance cm3/1000s.

: +- 2.5

Spreed

Tolerance

cm3/1000 strokes :

3.0

Check tolerance

cm3/1000s.

: 7.0

•	
1	Spreed
Del. quantity	Tolerance
cm3/1000 strokes : 12.0	cm3/1000 strokes : 3.0
Tolerance + cm3/1000 strokes : + 2.0 +	Check tolerance cm3/1000s. : 7.0
	cm3/1000s. : 7.0
Check tolerance + 4.0 +	
Spreed +	
Tolerance	CONTROL LEVER
cm3/1000 strokes : 4.5	CONTROL LEVER
Check tolerance	control lever
cm3/1000s. : 7.0	position degree : 64.0
1.0	tolerance degree : + 4.0
1	coterance degree 410
(B) SETTING OF INJECTION PUMP	control lever
WITH GOVERNOR	position degree : 114.0
Watti Governon	tolerance degree : + 4.0
	total affect acgives a vivial 4.0
GUIDE SLEEVE TRAVEL	RATED SPEED
-	
Rated speed rpm : 300	rack travel mm : 11.50
guide sleeve	Rated speed rpm : 1445
travel mm : 1.05	Tolerance 1/min : +- 5
Tolerance mm : + 0.25	
	rack travel mm : 4.00
Rated speed rpm : 1500	Rated speed rpm : 1590
guide steeve	Tolerance 1/min : +- 20
travel mm : 8.55	
Tolerance mm : +- 0.05	rack travel mm : 0.50
	Tolerance mm : + 0.50
Rated speed rpm : 500	Rated speed rpm : 1750
guide sleeve	
travel mm : 2.55	
Tolerance mm : + 0.25	
	LOW IDLE
Rated speed rpm : 750	
guide sleeve	•
travel mm : 4.20	control lever
Tolerance mm : + 0.10	position degree : 71.0
	tolerance degree : +- 4.0
GUIDE SLEEVE POSITION +	control lever
<u> </u>	position degree : 21.0
Rated speed rpm : 1500	tolerance degree : +- 4.0
+	-
Rack travel in mm: 16.50	Testing:
Tolerance mm : + 1.30 +	_
+	Rated speed rpm : 300
	rack travel mm : 9.00
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : + 0.10
+	
Rated speed rpm : 1400 +	Rated speed rpm : 100
Aneroid pressure +	·
hPa : 700 +	CRT mm min. : > 10.30
Del. quantity	
cm3/1000 strokes : 78.0	Rated speed rpm : 620
Tolerance	·
cm3/1000 strokes : + 0.5	
Check tolerance +	TORQUE CONTROL
CHECK COLETAINCE	
cm3/1000s. : +- 2.5	1011302 00111110

Rated speed rpm rack travel mm Tolerance mm	: 1400 : 12.45 : +- 0.05	Tolerance cm3/1000 strokes : + 1.5 Check tolerance cm3/1000s. : + 3.5
Rated speed rpm rack travel mm Tolerance mm	: 13.25	Aneroid pressure hPa : 700
Rated speed rpm rack travel mm Tolerance mm	: 1000 : 12.80 : + 0.10	Rated speed rpm : 1000 Del. quantity cm3/1000 strokes : 76.5 Tolerance cm3/1000 strokes : + 1.5
ANEROID/ALTITUDE COMPENSATOR TEST		Check tolerance cm3/1000s. : + 3.5
OFTTAIO		Aneroid pressure hPa
SETTING	. 500	Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 57.5
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 700	Tolerance cm3/1000 strokes : + 0.5
	: + 0.05	Check tolerance cm3/1000s. : +- 2.5
MEASUREMENT		The state of the s
Pressure hPa Rated speed rpm rack travel mm Tolerance mm		BREAKAWAY Rack travel in mm: 11.50
Rated speed rpm	: 500	+ Rated speed rpm : 1445 Tolerance 1/min : + 5
Pressure hPa rack travel mm Tolerance mm	: 12.60	STARTING FUEL DELIVERY
Pressure hPa rack travel mm Tolerance mm		Rated speed rpm : 100 rack travel mm : 16.00 Tolerance mm : + 0.20 Del. quantity
START CUT-OUT		
Rated speed rpm Rated speed rpm	: > 100 : < 220	Check tolerance cm3/1000s. : +- 10.0
Check speed 1/min Check	: > 80	
speed 1/min	: < 240	LOW IDLE
FUEL DELIVERY CHA	RACTERISTICS	Del. quantity cm3/1000 strokes : 12.0 Tolerance
Aneroid pressure hPa	: 700	cm3/1000 strokes : +- 2.0 Check tolerance
Rated speed rpm Del. quantity cm3/1000 strokes		+ cm3/1000s. : +- 4.0 + Spreed
CIIIS/ TUUU STPOKES	. 00.5	Т

G08

Tolerance : 4.5 Check tolerance cm3/1000s. : 7.0

BOSCH INJ. PUMP TEST SPECIFICATIONS Note remarks Refer to Service Info for test and adjustment instructions. See microcard(s) W400/... Edition : 09.04.96 Test oil : ISO 4113 Combination No. : 9 400 085 307 Injection pump Pump designation : PES4A95D410RS2774 EP type number : 9 400 084 019 Governor : RQV300...1300AB1228 Governer design. : -1L : 9 420 080 268 Governer no. Cust. part No. Customer-spec. information Customer : MBB : OM 364 A Motor Power KW 85.0 TEST BENCH REQUIREMENTS Inlet line : 3.1 Test oil inlet temp. °C 40 2.0 Tolerance °C Overflow valve : 1 419 992 198 Inlet press. bar : 1.5 Test nozzle holde : 0 681 343 009 assembly Opening pressure 173.5

1.5

: 1 680 750 015

6.0

REMARKS	
(A) INJECTION PUM Set equal deliver per values	y quant.
BEGINNING OF DELI	VERY
Test pressure bar Tolerance bar	: 26.0 : + 1.0
Prestroke mm Tolerance mm	: 3.25 : + 0.05
Check tolerance mm	: +- 0.10
Rack travel in mm Tolerance mm	: 10.50 : +- 1.50
Firing order	: 1-3-4-2
Phasing	: 0-90-180-270
BASIC SETTING	
Rated speed rpm	: 1300
Rack travel in mm Folerance mm	: 10.65 : + 0.05
Del. quantity cm3/1000 strokes	: 91.0
Folerance cm3/1000 strokes	: + 1.0
Check tolerance cm3/1000S.	: + 3.0
Spreed Tolerance Sm3/1000 strokes	: 3.5
Check tolerance	: 8.0

x inside diameter:

x length mm

3.0 600

G10

Tolerance bar

Outside diameter :

Test lines

Dal managas	Tolopaneo
Del. quantity cm3/1000 strokes : 10.0	Tolerance : 3.5
Tolerance	Check tolerance
cm3/1000 strokes : + 2.0	cm3/1000s. : 8.0
Check tolerance	+
cm3/1000s. : +- 4.5	†
Spreed	CONTROL LEVER
Tolerance cm3/1000 strokes : 5.5	T CONTROL LEVER
Check tolerance	control lever
cm3/1000s. : 9.0	position degree : 59.0
•	tolerance degree : +- 4.0
(B) SETTING OF INJECTION PUMP	t control lever
WITH GOVERNOR	position degree : 108.0
47 111 GOACIIIOII	tolerance degree : +- 4.0
	+
GUIDE SLEEVE TRAVEL	RATED SPEED
Rated speed rpm : 300	rack travel mm : 9.60
guide sleeve -	Rated speed rpm : 1365
travel mm : 1.05	Tolerance 1/min : + 5
Tolerance mm : + 0.25	t rack travel mm : 4.00
Rated speed rpm : 1500	Rated speed rpm : 1490
guide sleeve	Tolerance 1/min : + 15
travel mm : 8.55	
Tolerance mm : + 0.05	rack travel mm : 0.50
Rated speed rpm : 500	Tolerance mm : + 0.50 Rated speed rpm : 1640
Rated speed rpm : 500 - guide sleeve -	Rated Speed rpill . 1040
travel mm : 2.55	
Tolerance mm : + 0.25	
	LOW IDLE
Rated speed rpm : 750 - guide sleeve -	£
	control lever
travel mm : 4.20	control lever position degree : 68.0
travel mm : 4.20 -	
travel mm : 4.20 Tolerance mm : + 0.10	position degree : 68.0 tolerance degree : + 4.0
travel mm : 4.20	position degree : 68.0 tolerance degree : + 4.0 control lever
travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION	position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 19.0
travel mm : 4.20 Tolerance mm : + 0.10	position degree : 68.0 tolerance degree : + 4.0 control lever
Travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50	position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 19.0
Travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500	position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Testing:
Travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50	position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300
Travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30	position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300
Travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP	position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10
travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300	position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300
travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure	position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100
Travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPe : 700	position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10
Travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPe : 700 Del. quantity	position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 8.00
Travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 91.0 Tolerance	position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 craft mm min. : > 8.00
Travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 91.0 Tolerance cm3/1000 strokes : + 1.0	position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 8.00 Rated speed rpm : 485
Travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPe : 700 Del. quantity cm3/1000 strokes : 91.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 8.00
Travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 91.0 Tolerance cm3/1000 strokes : + 1.0	position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 8.00 Rated speed rpm : 485

rack travel mm : Tolerance mm :	10.65 +- 0.05	- Check tolerance - cm3/1000s. : +- 4.0
	800 11.05 ← 0.05	Aneroid pressure hPa : - Rated speed rpm : 500 Del. quantity
rack travel mm :	1000 10.90 +- 0.10	- cm3/1000 strokes : 53.0 - Tolerance - cm3/1000 strokes : +- 1.0 - Check tolerance - cm3/1000s. : +- 3.0
ANEROID/ALTITUDE COMPENSATOR TEST		BREAKAWAY
SETTING	1	- Rack travel in mm : 9.60
Pressure hPa : rack travel mm :	500 700 11.05 +- 0.05	Rated speed rpm : 1365 Tolerance 1/min : + 5
MEASUREMENT	1	- STARTING FUEL DELIVERY
Pressure hPa : Rated speed rpm :	500	Rated speed rpm : 100 - rack travel mm : 13.00 - Tolerance mm : + 0.10
Rated speed rpm :	500	- Del. quantity - cm3/1000 strokes : 84.0
rack travel mm :	280 0.45 + 0.05	- Tolerance - cm3/1000 strokes : +- 6.0
rack travel mm :	410 1.40 +- 0.10	- LOW IDLE
START CUT-OUT		Del. quantity cm3/1000 strokes : 10.0 Tolerance
Rated speed rpm :	> 100 + 220	- cm3/1000 strokes : +- 2.0 - Check tolerance - cm3/1000s. : +- 4.5
Check speed 1/min : Check	> 80	Spreed Tolerance cm3/1000 strokes : 5.5
speed 1/min :	< 240	Check tolerance cm3/1000s. : 9.0
FUEL DELIVERY CHARAC	TERISTICS	•
Aneroid pressure hPa : Rated speed rpm : Del. quantity cm3/1000 strokes : Tolerance cm3/1000 strokes :	700 800 86.0 +- 2.0	End of test specification sheet
	+	•

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 09,04,96 : ISO 4113

Combination No.

: 9 400 085 311

Injection pump

Pump designation : PES6A90D320RS2718 : 9 400 084 003

EP type number

Governor

Governer design.

: RSV350...1250A0c1108

: -2R

Governer no.

: 9 420 083 272

Cust. part No. :

Customer-spec. information MWM

Customer Motor

: TD 229 EC-06

Power KW

: 121.5

TEST BENCH REQUIREMENTS

Inlet line

: 3.1

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 bar : +- 1.5 Tolerance bar

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0 600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

2.75 Prestroke mm Tolerance mm : + 0.05Check tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm : \leftarrow 1.50

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300

Beginning of delivery differende

and maximum rack

travel 10.50 Tolerance mm : +- 1.50 3.50 Difference * CS

BASIC SETTING

Rated speed rpm 1200

Rack travel in mm: 10.85 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 89.0

Tolerance cm3/1000 strokes : +-0.5

Check tolerance cm3/1000s. : +- 2.5

G13

	1
Spreed Tolerance cm3/1000 strokes : 3.0	control lever position degree : 109.0 tolerance degree : + 4.0
Check tolerance cm3/1000S. : 7.0	RATED SPEED
Del. quantity cm3/1000 strokes : 11.0 Tolerance	+ rack travel mm : 9.80 + Rated speed rpm : 1295 + Tolerance 1/min : + 5
cm3/1000 strokes : +- 2.0	rack travel mm : 4.00
Check tolerance cm3/1000S. : +- 4.0 Spreed	Rated speed rpm : 1375 Tolerance 1/min : +- 15
Tolerance cm3/1000 strokes : 4.5 Check tolerance cm3/1000s. : 7.0	rack travel mm : 0.85 Tolerance mm : +- 0.55 Rated speed rpm : 1450
(B) SETTING OF INJECTION PUMP	LOW IDLE
WITH GOVERNOR	control lever position degree : 79.0
GUIDE SLEEVE POSITION	+ tolerance degree : +- 4.0
Rated speed rpm : 800	Setting point w/out bumper spring
Rack travel in mm : 0.65 Tolerance mm : + 0.35	Rated speed rpm : 350 rack travel mm : 4.70
governor spring pre-tension	Testing:
click setting x : 4.50	Rated speed rpm : 350 rack travel mm : 5.20 Tolerance mm : +- 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	+
Rated speed rpm : 1200 Aneroid pressure	rack travel mm : 2.00 Rated speed rpm : 425 Tolerance 1/min : +- 30
hPa : - Del. quantity cm3/1000 strokes : 89.0	Rated speed rpm : 100
Tolerance cm3/1000 strokes : +- 0.5	CRT mm min. : > 19.00
Check tolerance	TODOUE CONTROL
cm3/1000s. : +- 2.5 Spreed	TORQUE CONTROL
Tolerance cm3/1000 strokes : 3.0	Rated speed rpm : 1200 rack travel mm : 10.85
Check tolerance cm3/1000s. : 7.0	Tolerance mm : + 0.05
	Rated speed rpm : 500 rack travel mm : 10.90 Tolerance mm : + 0.10
CONTROL LEVER -	Rated speed rpm : 400 rack travel mm : 12.30

Tolerance	mm	: +-	0.30
-----------	----	------	------

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa Rated speed rpm : 500

Del. quantity

cm3/1000 strokes : 80.5

Tolerance

cm3/1000 strokes : +- 2.0

Check tolerance

cm3/1000s. : +- 4.0

BREAKAWAY

Rack travel in mm: 9.80 Rated speed rpm : 1295 Tolerance 1/min : + 5

STARTING FUEL DELIVERY

100 Rated speed rpm : rack travel mm : 20.00 Tolerance mm : **←** 1.00

LOW IDLE

Del. quantity

cm3/1000 strokes : 11.0

Tolerance -

cm3/1000 strokes : +-2.0

Check tolerance

cm3/1000s. : +- 4.0

Spreed

Tolerance

cm3/1000 strokes : 4.5

Check tolerance cm3/1000s.

7.0 :

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Test oil : 09.04.96

Combination No. : 9 400 085 327

Injection pump

Pump designation : PES6A95D410RS2772 EP type number : 9 400 084 018

Governor

Governer design. : RSV350...1250A0C1150

: -4L

: 9 420 083 256 Governer no.

Cust. part No. :

Customer-spec. information Customer : MBB : OM 366 A Motor Power KW : 121.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 : +- 2.0 Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 bar Tolerance bar : + 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter : 3.0 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.25 : +- 0.05 Tolerance mm Check

Rack travel in mm: 10.50 Tolerance mm : + 1.50

: 1-5-3-6-2-Firing order

: + 0.10

: 0-60-120-180-240 Phasing

: -300

BASIC SETTING

tolerance mm

Rated speed rpm : 1250

Rack travel in mm: 9.65 : + 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 82.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +--3.0

Spreed

Tolerance

cm3/1000 strokes :

3.5

Check tolerance

cm3/1000s. 8.0

Del. quantity cm3/1000 strokes	: 15.0
Tolerance cm3/1000 strokes	: + 2.0
Check tolerance cm3/1000S. Spreed	: + 5.0
Tolerance cm3/1000 strokes	÷ 5.5
Check tolerance cm3/1000s.	: 9.0
(B) SETTING OF IN. WITH GOVERNOR	JECTION PUMP
GUIDE SLEEVE POSIT	TION
Rated speed rpm	: 800
Rack travel in mm Tolerance mm	: 0.65 : + 0.35
governor spring pre-tension click setting x	: 3.25
FULL LOAD DELIVERY	AT FULL LOAD STOP
Rated speed rpm Aneroid pressure hPa	: 1250 : -
Del. quantity cm3/1000 strokes	· 82.0
Tolerance cm3/1000 strokes	: +- 1.0
Check tolerance cm3/1000s. Spreed	: +- 3.0
Tolerance cm3/1000 strokes	: 3.5
Check tolerance cm3/1000s.	: 8.0
CONTROL LEVER	
control lever position degree tolerance degree	: 103.0 : + 4.0
RATED SPEED	
rack travel mm Rated speed rpm	: 8.60 : 1295

Tolerance 1/min	: +- 5
rack travel mm	: 4.00
Rated speed rpm	: 1340
Tolerance 1/min	: +- 15
rack travel mm	: 1.00
Tolerance mm	: +- 0.70
Rated speed rpm	: 1500
LOW IDLE	
control lever position degree tolerance degree	: 75.0 : ← 4.0
Setting point w/c	out bumper spring
Rated speed rpm	: 350
rack travel mm	: 6.30
Testing:	
Rated speed rpm	: 350
rack travel mm	: 6.80
Tolerance mm	: ← 0.10
rack travel mm	: 2.00
Rated speed rpm	: 450
Tolerance 1/min	: +- 30
Rated speed rpm	: 100
CRT mm min.	: > 19.00
TORQUE CONTROL	
Rated speed rpm	: 1250
rack travel mm	: 9.65
Tolerance mm	: +- 0.05
Rated speed rpm	: 800
rack travel mm	: 9.65
Tolerance mm	: +- 0.05
Rated speed rpm	: 500
rack travel mm	: 9.70
Tolerance mm	: ← 0.10
Rated speed rpm	: 400
rack travel mm	: 11.10
Tolerance mm	: + 0.30

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : -Rated speed rpm : 800 Del. quantity

cm3/1000 strokes : 74.0

Tolerance

cm3/1000 strokes : +- 2.0

Check tolerance

cm3/1000s. : +- 4.0

BREAKAWAY

Rack travel in mm : 8.60
Rated speed rpm : 1295
Tolerance 1/min : + 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 14.00 Tolerance mm : + 0.10

Del. quantity

cm3/1000 strokes : 105.0

Tolerance

cm3/1000 strokes : + 10.9

Check tolerance

cm3/1000s. : +- 13.0

LOW IDLE

Del. quantity

cm3/1000 strokes : 15.0

Tolerance

cm3/1000 strokes : +- 2.0

Check tolerance

cm3/1000s. : +- 5.0

Spreed

Tolerance

cm3/1000 strokes : 5.5

Check tolerance

cm3/1000s. : 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 09.04.96 : ISO 4113

Combination No. : 9 400 085 329

Injection pump

Pump designation : PES6A95D410RS2772 EP type number : 9 400 084 018

Governor

Governer design. : RQV300...1300AB1256L

Governer no. : 9 420 080 297

Cust. part No. :

Customer-spec. information Customer : MBB : OM 366 LA Motor

: 150.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C Tolerance °C : + 2.0

Overflow valve : 1 417 413 006

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 : + 1.5 Tolerance bar

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm 3.25 : +- 0.05 Tolerance mm

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 11.15 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 99.0

Tolerance cm3/1000 strokes : + 1.0

Check tolerance

: +cm3/1000s. 3.0

Spreed Tolerance

3.5 cm3/1000 strokes :

Check tolerance cm3/1000s.

6.0

T	Spreed
Del. quantity	Tolerance
cm3/1000 strokes : 11.0 +	cm3/1000 strokes : 3.5
cm3/1000 strokes : +- 3.0	Check tolerance cm3/1000s. : 6.0
Check tolerance	cm3/100Us. : 6.0
cm3/1000s, : +- 5.0	
Spreed	
Tolerance +	CONTROL LEVER
cm3/1000 strokes : 3.5	COMMON ELACK
Check tolerance	control lever
cm3/1000s. : 5.5	position degree : 60.0
-	tolerance degree : +- 4.0
1	3
(B) SETTING OF INJECTION PUMP	control lever
WITH GOVERNOR +	position degree : 118.0
+	tolerance degree : +- 4.0
GUIDE SLEEVE TRAVEL +	RATED SPEED
T	40.40
Rated speed rpm : 300 +	rack travel mm : 10.10
guide sleeve	Rated speed rpm : 1365
travel mm : 1.05	Tolerance 1/min : + 5
Tolerance mm : + 0.25	rack travel mm : 4.00
Rated speed rpm : 1500	Rated speed rpm : 1505
Rated speed rpm : 1500	Tolerance 1/min : +- 15
travel mm : 8.55	rocerance minn +- 15
Tolerance mm : + 0.05	rack travel mm : 0.50
Total dilic limit	Tolerance mm : +- 0.50
Rated speed rpm : 500	Rated speed rpm : 1650
guide sleeve	
travel mm : 2.55	
Tolerance mm : + 0.25	
1	LOW IDLE
Rated speed rpm : 750	
guide sleeve +	
travel mm : 4.20	control lever
Tolerance mm : + 0.10 +	position degree : 74.0
+	tolerance degree : +- 4.0
GUIDE SLEEVE POSITION +	control lever
Cotod anad mm a 1500	position degree : 16.0
Rated speed rpm : 1500	tolerance degree : +- 4.0
Rack travel in mm: 16.50	Testing:
Tolerance mm : + 1.30	restrig.
Total alice that	Rated speed rpm : 300
	rack travel mm : 7.00
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : + 0.10
Rated speed rpm : 1300	Rated speed rpm : 100
Aneroid pressure	• •
hPa : 700 +	CRT mm min. :> 8.00
Del. quantity	
cm3/1000 strokes : 99.0 +	Rated speed rpm : 485
Tolerance +	
cm3/1000 strokes : + 1.0 +	
Check tolerance	TORQUE CONTROL
cm3/1000s. : + 3.0 +	

Rated speed rpm rack travel mm Tolerance mm Rated speed rpm rack travel mm Tolerance mm ANEROID/ALTITUDE COMPENSATOR TEST	: 11.15 : ← 0.05 : 700 : 11.15 : ← 0.05	Aneroid pressure hPa : - Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 60.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0
SETTING		BREAKAWAY
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 700 : 11.15	Rack travel in mm: 10.10 Rated speed rpm: 1365 Tolerance 1/min: +- 5
MEASUREMENT		STARTING FUEL DELIVERY
Pressure hPa Rated speed rpm rack travel mm Tolerance mm Rated speed rpm	: 9.55 : +- 0.15	Rated speed rpm : 100 rack travel mm : 13.70 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 84.0
Pressure hPa rack travel mm Tolerance mm		Tolerance cm3/1000 strokes : +- 6.0
Pressure hPa rack travel mm Tolerance mm	: 450 : 10.65 : +- 0.05	LOW IDLE Del. quantity
START CUT-OUT		- cm3/1000 strokes : 11.0 Tolerance
Rated speed rpm Rated speed rpm	: > 100 : < 220	cm3/1000 strokes : ← 3.0 Check tolerance cm3/1000S. : ← 5.0 Spreed
Check speed 1/min Check speed 1/min	: > 80 : < 240	Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 5.5
FUEL DELIVERY CHA	ARACTERISTICS	+
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.		End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 09.04.96 Test oil : ISO 4113

Combination No. : 9 400 085 334

Injection pump

Pump designation : PES6A100D320/3RS2691

: -2

EP type number : 9 410 230 028

Governor

Governer design. : RQV350...1100AB1218

: -2R

Governer no. : 9 420 080 304

Cust. part No. : 3352552

Customer—spec. information Customer : CUMMINS

Motor : 6 CTA - 8.3 L

Power KW : 179.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : + 1.50
Difference * CS : 3.50

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 13.65
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 128.5

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s.	: + 3.0	Check tolerance cm3/1000s. Spreed	: +- 3.0
Spreed Tolerance cm3/1000 strokes	: 3.5	Tolerance cm3/1000 strokes check tolerance cm3/1000s.	: 3.5 : 8.0
Check tolerance cm3/1000s.	: 8.0		
Del. quantity cm3/1000 strokes Tolerance	: 15.0	CONTROL LEVER	
cm3/1000 strokes Check tolerance	4	position degree tolerance degree	
cm3/1000s. Spreed	: 	control lever	. 449.0
Tolerance cm3/1000 strokes Check tolerance	: 5.5	position degree tolerance degree	
cm3/1000s.	: 9.0	RATED SPEED	. 12.40
(B) SETTING OF IN WITH GOVERNOR	JECTION PUMP	rack travel mm Rated speed rpm Tolerance 1/min	: 1145
GUIDE SLEEVE TRAV		rack travel mm Rated speed rpm Tolerance 1/min	
Rated speed rpm guide sleeve travel mm	: 1100 : 8.45	rack travel mm Tolerance mm	: 0.50 : + 0.50
Tolerance mm	: + 0.05 : 800	Rated speed rpm	
Rated speed rpm guide sleeve travel mm	: 800 - : 5.75 -	LOW IDLE	
Tolerance mm Rated speed rpm	: + 0.15 : 350	- - control lever	
guide sleeve travel mm Tolerance mm	: 350 : 2.40 : + 0.20	position degree tolerance degree	: 72.0 : +- 4.0
Rated speed rpm guide sleeve	: 500	- control lever - position degree - tolerance degree	: 17.0 : + 4.0
travel mm Tolerance mm	: + 4.05 : + 0.15	- Testing:	
FULL LOAD DELIVER	Y AT FULL LOAD STOP	- Rated speed rpm - rack travel mm - Tolerance mm	: 350 : 6.00 : + 0.10
Rated speed rpm Aneroid pressure	: 1100	- Rated speed rpm	: 100
hPa Del. quantity cm3/1000 strokes	: 900 : 128.5	- CRT mm min.	: > 9.00
Tolerance cm3/1000 strokes	-	- Rated speed rpm	: 425

		†
TORQUE CONTROL		FUEL DELIVERY CHARACTERISTICS
Rated speed rpm rack travel mm Tolerance mm	: 1100 : 13.65 : + 0.05	Aneroid pressure hPa : 900 Rated speed rpm : 800
Rated speed rpm rack travel mm Tolerance mm		Del. quantity cm3/1000 strokes : 141.0 Tolerance cm3/1000 strokes : +- 2.0
Rated speed rpm rack travel mm Tolerance mm	: 900 : 14.20 : + 0.10	Check tolerance cm3/1000s. : + 4.0 Aneroid pressure
Rated speed rpm rack travel mm Tolerance mm		+ hPa : 900 + Rated speed rpm : 900 + Del. quantity + cm3/1000 strokes : 137.5 + Tolerance
ANEROID/ALTITUDE COMPENSATOR TEST		- + cm3/1000 strokes : + 2.0 + Check tolerance - cm3/1000s. : + 4.0
SETTING		Aneroid pressure hPa : - Rated speed rpm : 500
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 900 : 14.45 : + 0.05	Del. quantity cm3/1000 strokes : 82.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 500 : 11.40 : + 0.10	BREAKAWAY
Rated speed rpm Pressure hPa rack travel mm	: 500 : 640 : 13.85	+ Rack travel in mm : 12.60 + Rated speed rpm : 1145 + Tolerance 1/min : +- 5
Tolerance mm Pressure hPa rack travel mm	: ← 0.15 : 440 : 12.10	STARTING FUEL DELIVERY Rated speed rpm : 100
START CUT-OUT	: + 0.10	+ rack travel mm : 20.00 + Tolerance mm : + 1.00 - Del. quantity - cm3/1000 strokes : 172.0
Rated speed rpm Rated speed rpm		Tolerance - cm3/1000 strokes : + 8.0 - Check tolerance - cm3/1000s. : + 11.0
Check speed 1/min Check	: > 80	‡
speed 1/min	: < 290	LOW IDLE

Del. quantity		
cm3/1000 strokes	:	15.0
Tolerance		
cm3/1000 strokes	: +	2.0
Check tolerance		
cm3/1000s.	: +	4.5
Spreed		
Tolerance		
cm3/1000 strokes	:	5.5
Check tolerance		
cm3/1000s.	:	9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 09,04,96

Test oil

: ISO 4113

Combination No.

: 9 400 085 339

Injection pump

Pump designation : PES4A950410RS2774

EP type number

: 9 400 084 019

Governor

Governer design. : RQV300...1300AB1066

: -11L

Governer no.

: 9 420 080 309

Cust. part No. : 0200742602

Customer-spec. information

Customer

: MBB

Motor

: OM 364 LA

Power KW

: 100.0

TEST BENCH REQUIREMENTS

Inlet line

: 3.1

Test oil inlet

temp. °C

Tolerance °C

Overflow valve

: 1 419 992 198

Inlet press. bar :

1.5

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

173.5

Tolerance bar

: +- 1.5

Test lines

: 1 680 750 015

Outside diameter :

6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

26.0 Test pressure bar : Tolerance bar : + 1.0

Prestroke mm 3.25 : +- 0.05 Tolerance mm

Check

: + 0.10tolerance mm

Rack travel in mm: 10.50 **⊢** 1.50

Tolerance mm

Firing order

: 1-3-4-2

Phasing

: 0-90-180-270

BASIC SETTING

Rated speed rpm 1300

Rack travel in mm : 11.55 Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes :

103.0

Tolerance

cm3/1000 strokes : +-1.0

Check tolerance

cm3/1000s.

3.0

Spreed

Tolerance

cm3/1000 strokes :

3.5

Check tolerance

cm3/1000s.

8.0

G26

Del. quantity -	- Tolerance
cm3/1000 strokes : 9.5	cm3/1000 strokes : +- 1.0
Tolerance	Check tolerance
cm3/1000 strokes : $+$ 2.0	cm3/1000s. : +- 3.0
Check tolerance	Spreed
cm3/1000s. : +- 4.5	Tolerance
Spreed	cm3/1000 strokes : 3.5
Tolerance	Check tolerance
cm3/1000 strokes : 5.5	- cm3/1000s. : 8.0
Check tolerance	1
cm3/1000s. : 9.0	
(1107 10000)	
	CONTROL LEVER
(B) SETTING OF INJECTION PUMP	CONTROL ELVER
WITH GOVERNOR	control lever
WITH GOVERNOR	· ·
CUINE OF EUR TRAVEL	tolerance degree : +- 4.0
GUIDE SLEEVE TRAVEL	annhant tourn
Dated aread non- a 4250	control lever
Rated speed rpm : 1350	position degree : 112.0
guide sleeve	tolerance degree : + 4.0
travel mm : 8.20	
Tolerance mm : + 0.10	RATED SPEED
Rated speed rpm : 1000 -	rack travel mm : 10.50
guide sleeve -	Rated speed rpm : 1360
travel mm : 5.75	Tolerance 1/min : +- 5
Tolerance mm : + 0.25	-
	rack travel mm : 4.00
Rated speed rpm : 300	- Rated speed rpm : 1475
guide sleeve	- Tolerance 1/min : + 15
travel mm : 1.05	-
Tolerance mm : + 0.25	rack travel mm : 0.50
	Tolerance mm : +- 0.50
Rated speed rpm : 700	- Rated speed rpm : 1630
guide sleeve	
travel mm : 4.25	
Tolerance mm : + 0.25	
TO COT WITH CHAIN	LOW IDLE
Rated speed rpm : 1450	47P 19Cm
guide steeve	
travel mm : 9.15	control lever
Tolerance mm : + 0.25	position degree : 68.0
Total ratio likit	tolerance degree : +- 4.0
	Local ance degree . The 4.0
GUIDE SLEEVE POSITION	control lever
GOIDE OFFERE LOSTITUM	- position degree : 20.0
Rated speed rom : 1395	- tolerance degree : +- 4.0
Rated speed rpm : 1395	- toterance degree : +- 4.0
Pauls Association and a 16 50	Tankinas
Rack travel in mm: 16.50	- Testing:
Tolerance mm : + 1.30	Data danced war - 700
†	- Rated speed rpm : 300
	- rack travel mm : 7.00
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : + 0.10
+	
Rated speed rpm : 1300 +	- Rated speed rpm : 100
Aneroid pressure +	
hPa : 800 +	- CRT mm min. :> 9.00
Del. quantity +	
cm3/1000 strokes : 103.0 +	- Rated speed rpm : 525

		+
TORQUE CONTROL		+ Aneroid pressure + hPa : 800
		+ Rated speed rpm : 700
Rated speed rpm		+ Del. quantity
rack travel mm		+ cm3/1000 strokes : 98.5
Tolerance mm	: +- 0.05	+ Tolerance
n. i lam salam	700	+ cm3/1000 strokes : + 2.0
Rated speed rpm rack travel mm	: 700 11 05	+ Check tolerance + cm3/1000s. : +- 4.0
Tolerance mm	: 11.95 : +- 0.05	+ cm3/1000s. : $+- 4.0$
TO CETALICE THE	. + 0.03	Aneroid pressure
Rated speed rpm	: 1100	+ hPa : -
rack travel mm		+ Rated speed rpm : 500
Tolerance mm		+ Del. quantity
		+ cm3/1000 strokes : 61.0
Rated speed rpm		+ Tolerance
rack travel mm		+ cm3/1000 strokes : +- 1.0
Tolerance mm	: +- 0.05	+ Check tolerance
		$+$ cm3/1000s. \div 3.0
ANEROID/ALTITUDE		<u> </u>
COMPENSATOR TEST		BREAKAWAY
CON ENOMICH TECH		
		+
SETTING		+ Rack travel in mm: 10.50
-	500	+ Rated speed rpm : 1360
Rated speed rpm		+ Tolerance 1/min : +- 5
Pressure hPa	: 800	†
rack travel mm	: 11.95	†
Tolerance mm	: + 0.05	+ STARTING FUEL DELIVERY
MEASUREMENT		T STARTING FOEL DELIVERT
TENDONG LIVI		+ Rated speed rpm : 100
Pressure hPa	: -	+ rack travel mm : 13.40
Rated speed rpm	: 500	+ Tolerance mm : + 0.10
		+ Del. quantity
Rated speed rpm	: 500	+ cm3/1000 strokes : 86.0
		+ Tolerance
Pressure hPa	: 500	+ cm3/1000 strokes : + 7.5
rack travel mm	: 1.55	+ Check tolerance
Tolerance mm	: +- 0.15	+ cm3/1000s. : +- 10.0
Pressure hPa	: 380	I
rack travel mm	: 0.50	1
Tolerance mm	: +- 0.10	
TOCCI GITEC TIRIT		+ LOW IDLE
		+
START CUT-OUT		+ Del. quantity
	. 400	cm3/1000 strokes : 9.5
Rated speed rpm	: > 100	† Tolerance
	: < 250	+ cm3/1000 strokes : + 2.0
Rated speed rom		
		Check tolerance
Sheck		+ cm3/1000s. : +- 4.5
Check speed 1/min	: > 80	+ cm3/1000s. : +- 4.5 + Spreed
Check speed 1/min Check	: > 80	+ cm3/1000s. : +- 4.5 + Spreed + Tolerance
Check speed 1/min		- cm3/1000s. : +- 4.5 - Spreed - Tolerance - cm3/1000 strokes : 5.5
Check speed 1/min Check	: > 80	+ cm3/1000s. : +- 4.5 + Spreed + Tolerance

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 09.04.96 Edition Test oil : ISO 4113

Combination No. : 9 400 085 340

Injection pump

Pump designation : PES6A95D410RS2795 EP type number : 9 400 084 020

Governor

Governer design. : RSV350...1250A0C1150

: -5L

: 9 420 083 258 Governer no.

Cust. part No. :

Customer-spec. information

Customer : MBB Motor : OM 366 Power KW : 94.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

Tolerance bar : **←** 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : +- 0.05 Tolerance mm

Check

: +- 0.10 tolerance mm

Rack travel in mm: 10.50 : + 1.50 Tolerance mm

: 1-5-3-6-2-Firing order

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 8.65 : +- 0.05 Tolerance mm

Del. quantity cm3/1000 strokes : 63.5

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +-3.0

Spreed

Tolerance

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s. 8.0

Del. quantity cm3/1000 strokes : 12.0
Tolerance : + 2.0
Check tolerance cm3/1000s. : + 4.5
Spreed Tolerance
cm3/1000 strokes : 5.5 Check tolerance
cm3/1000s. : 9.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR
GUIDE SLEEVE POSITION
Rated speed rpm : 800
Rack travel in mm: 0.65 Tolerance mm: +- 0.35
<pre>governor spring pre-tension click setting x : 5.00</pre>
FULL LOAD DELIVERY AT FULL LOAD STOP
Rated speed rpm : 1250
Rated speed rpm : 1250 Aneroid pressure hPa : -
Rated speed rpm : 1250 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 63.5
Rated speed rpm : 1250 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 63.5 Tolerance cm3/1000 strokes : +- 1.0
Rated speed rpm : 1250 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 63.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0
Rated speed rpm : 1250 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 63.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance
Rated speed rpm : 1250 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 63.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance
Rated speed rpm : 1250 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 63.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5
Rated speed rpm : 1250 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 63.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000 strokes : 8.0
Rated speed rpm : 1250 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 63.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 8.0
Rated speed rpm : 1250 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 63.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000 strokes : 8.0
Rated speed rpm : 1250 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 63.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever position degree : 110.0

Tolerance 1/min	
	: +- 5
rack travel mm Rated speed rpm Tolerance 1/min	: 4.00 : 1347 : + 15
rack travel mm Tolerance mm Rated speed rpm	: 0.85 : +- 0.55 : 1500
FOM IDE	
control lever position degree tolerance degree	: 82.0 : + 4.0
Setting point w/o	out bumper spring
Rated speed rpm rack travel mm	: 350 : 6.50
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 350 : 7.00 : + 0.10
rack travel mm Rated speed rpm Tolerance 1/min	
Rated speed rpm	: 100
CRT mm min.	: > 19.00
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 1250 : 8.65 : +- 0.05
Rated speed rpm rack travel mm Tolerance mm	: 500 : 8.70 : + 0.10
Rated speed rpm	: 400 : 10.10 : +- 0.30

Rack travel in mm	:	7.60
Rated speed rpm	:	1295
Tolerance 1/min	٠	+ 5

STARTING FUEL DELIVERY

Rated speed rpm	٠		100
rack travel mm	:		14.20
Tolerance mm	:	+-	0.10
Del. quantity			
cm3/1000 strokes	:		101.5
Tolerance			
cm3/1000 strokes	:	+-	7.5
Check tolerance			
cm3/1000s.	;	+	10.0

LOW IDLE

01101 1000 001 01/00	:	12.0
Tolerance cm3/1000 strokes	• 4	2.0
Check tolerance	• •	2.0
cm3/1000s.	: +-	4.5
Spreed Tolerance		
cm3/1000 strokes	:	5.5
Check tolerance cm3/1000s.	:	9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 09.04.96 Test oil : ISO 4113

Combination No. : 9 400 085 341

Injection pump

Pump designation : PES4A95D410RS2805 EP type number : 9 400 084 026

Governor

Governer design. : RSV350...1300A0C1150

: -6L

Governer no. : 9 420 083 257

Cust. part No.

Customer-spec. information Customer : MBB Motor : OM 364 Power KW : 60.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

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x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.25
Tolerance mm : + 0.05
Check
tolerance mm : + 0.10

Rack travel in mm : 10.50

Tolerance mm : + 1.50

Firing order : 1-3-4-2

Phasing : 0-90-180-270

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 9.45
Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 59.5

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. : +- 3.0

Spreed Tolerance

cm3/1000 strokes : 3.5

Check tolerance cm3/1000s. 8.0

Del. quantity			+		
cm3/1000 strokes	:	9.0	+	rack travel mm	: 4.00
Tolerance cm3/1000 strokes	: +-	2.0	†	Rated speed rpm Tolerance 1/min	
Check tolerance		2.0	I	toterance thinn	: +- 15
cm3/1000S.	: +-	4.5	+	rack travel mm	: 0.85
Spreed			+	Tolerance mm	: + 0.55
Tolerance		F	†	Rated speed rpm	: 1550
cm3/1000 strokes Check tolerance	•	5.5	İ		
cm3/1000s.	:	9.0	Ţ		
			+	LOW IDLE	
(2) APPERIO AP VIII		Wall 18 8 Ph.	+		
(B) SETTING OF INJ WITH GOVERNOR	FCITON	PUMP	İ	control lever	
ATIH GOAFWAOK			I	position degree	: 82.0
			+	tolerance degree	
CUITAGE OF FEUE DOOTT			+	Cattles maint/a	
GUIDE SLEEVE POSIT	TOM		Ī	Setting point w/o	ut bumper spring
Rated speed rpm	: 80	00	+	Rated speed rpm	
Bart Annal to an		2 /5	+	rack travel mm	: 7.00
Rack travel in mm Tolerance mm),65),35	Ī	Testing:	
rocer arice man	. ,	5. 33	Ţ	resting.	
governor spring			+	Rated speed rpm	: 350
pre-tension		ong per	+	rack travel mm	7.50
click setting x	: 4	4.75	İ	Tolerance mm	: + 0.10
		<u></u> .	I	rack travel mm	: 2.00
FULL LOAD DELIVERY	AT FUL	L LOAD STOP	+	Rated speed rpm	: 500
~	4796	•	+	Tolerance 1/min	: +- 30
Rated speed rpm Aneroid pressure	: 130	JU	İ	Rated speed rpm	: 100
hPa	:	_	I	nated speed (pill	. 100
Del. quantity			+	CRT mm min.	: > 19.00
cm3/1000 strokes	: 5	59.5	+		
Tolerance cm3/1000 strokes		1.0	1	TORQUE CONTROL	
Check tolerance	• • •	1.0	Ţ	TORGOL CONTROL	
cm3/1000s.	: +	3.0	+	Rated speed rpm	: 1300
Spreed			+	rack travel mm	9.45
Tolerance cm3/1000 strokes	:	3.5	İ	Tolerance mm	: +- 0.05
Check tolerance	•	3.3	I	Rated speed rpm	: 500
cm3/1000s.	•	8.0	+	rack travel mm	: 9.50
			+	Tolerance mm	: ← 0.10
			İ	Rated speed rpm	: 400
CONTROL LEVER				rack travel mm	: 10.90
				Tolerance mm	: +- 0.30
control lever		4.0	+		
		1.0 4.0	1		
tolerance degree	•	7.0	I		
RATED SPEED			+		
	_		+		
rack travel mm	: 8 : 134	.40	1	EREAKAWAY	
Rated speed rpm : Tolerance 1/min :	. 134 : +	5	I		
	-		ŧ		

Rack travel in mm	:	8.40
Rated speed rpm	:	1345
Tolerance 1/min	:	+- 5

STARTING FUEL DELIVERY

Rated speed rpm	:	100
rack travel mm	:	14.90
Tolerance mm	: +-	0.10
Del. quantity		
cm3/1000 strokes	:	94.0
Tolerance		
cm3/1000 strokes	; +	7.5
Check tolerance		
cm3/1000s.	; +-	10.0

LOW IDLE

Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed	: +-	9.0 2.0 4.5
Tolerance cm3/1000 strokes Check tolerance cm3/1000S.	:	5.5 9.0

BOSCH INJ. PUMP TEST SPECIFICATIONS Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 08.04.96 Test oil : ISO 4113

Combination No. : 9 400 085 351

Injection pump

Pump designation : PES6A95D41DRS2772 EP type number : 9 400 084 018

Governor

Governer design. : RQV300...1300AB1066

: -13L

: 9 420 080 332 Governer no.

Cust. part No. :

Customer-spec. information : MBB Customer

: OM 366 LA Motor Power KW : 150.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 bar : **←** 1.5 Tolerance bar

: 1 680 750 015 Test Lines

Outside diameter : 6.0

80H

x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

26.0 Test pressure bar : Tolerance bar : +-

Prestroke mm 3.25 Tolerance mm : +- 0.05 Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 : **←** 1.50 Tolerance mm

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 11.45 : +- 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 104.0

Tolerance

cm3/1000 strokes : +-0.5

Check tolerance

cm3/1000s. 2.5

Spreed Tolerance

cm3/1000 strokes :

3.5

Check tolerance cm3/1000s.

8.0

	Chroad
Del. quantity	Spreed Tolerance
cm3/1000 strokes : 11.0	cm3/1000 strokes : 3.5
Tolerance	Check tolerance
cm3/1000 strokes : +- 2.0 +	cm3/1000s. : 8.0
Check tolerance	. 0.0
cm3/1000s. : +- 4.5	
Spreed	
Tolerance	CONTROL LEVER
cm3/1000 strokes : 5.5	CONTROL LEVER
	and all lavas
Check tolerance + cm3/1000s. : 9.0	control lever
cm3/1000s. : 9.0	position degree : 60.0
†	tolerance degree : + 4.0
(D) CETTING OF THE FORTON DUMP	and all laws
(B) SETTING OF INJECTION PUMP	control lever
WITH GOVERNOR +	position degree : 109.0
†	tolerance degree : +- 4.0
GUIDE SLEEVE TRAVEL	RATED SPEED
+	40.40
Rated speed rpm : 300	rack travel mm : 10.60
guide sleeve +	Rated speed rpm : 1360
travel mm : 1.05 +	Tolerance 1/min : + 5
Tolerance mm : + 0.25	
+	rack travel mm : 4.00
Rated speed rpm : 1500 +	Rated speed rpm : 1505
guide sleeve	Tolerance 1/min : + 15
travel mm : 8.55	
Tolerance mm : + 0.05 +	rack travel mm : 0.50
+	Tolerance mm : + 0.50
Rated speed rpm : 500 +	Rated speed rpm : 1650
guide sleeve +	
travel mm : 2.55 +	
Tolerance mm : + 0.25	
Tolerance mm : + 0.25	LOW IDLE
	LOW IDLE
Tolerance mm : + 0.25	
Tolerance mm : + 0.25 Rated speed rpm : 750	control lever
Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve	control lever
Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20	control lever
Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20	control lever position degree : 68.0
Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20	<pre>control lever position degree : 68.0 tolerance degree : + 4.0 control lever</pre>
Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10	control lever position degree : 68.0 tolerance degree : + 4.0
Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION	<pre>control lever position degree : 68.0 tolerance degree : + 4.0 control lever</pre>
Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10	control lever position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 19.0
Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500	control lever position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0
Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50	control lever position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 19.0
Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500	control lever position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Testing:
Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50	control lever position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300
Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50	control lever position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300
Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30	control lever position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00
Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP	control lever position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10
Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300	control lever position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10
Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure	control lever position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10
Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 900	control lever position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100
Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 900 Del. quantity	control lever position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 8.00
Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 900 Del. quantity cm3/1000 strokes : 104.0	control lever position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 8.00
Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 900 Del. quantity cm3/1000 strokes : 104.0 Tolerance	control lever position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 8.00
Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 900 Del. quantity cm3/1000 strokes : 104.0 Tolerance cm3/1000 strokes : + 0.5	control lever position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 8.00 Rated speed rpm : 375
Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : +- 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : +- 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 900 Del. quantity cm3/1000 strokes : 104.0 Tolerance	control lever position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 8.00

Rated speed rpm rack travel mm Tolerance mm Rated speed rpm rack travel mm Tolerance mm ANEROID/ALTITUDE COMPENSATOR TEST	: 11.45 : +- 0.05 : 800 : 11.45 : ← 0.05	Aneroid pressure hPa : - Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 60.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 BREAKAWAY
SETTING Rated speed rpm Pressure hPa	: 900	Rack travel in mm : 10.60 Rated speed rpm : 1360 Tolerance 1/min : + 5 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 12.90 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 76.5 Tolerance cm3/1000 strokes : + 7.5 Check tolerance cm3/1000s. : + 10.0
rack travel mm Tolerance mm		
MEASUREMENT		T STARTING FUEL DELIVERY
Pressure hPa Rated speed rpm	500	Rated speed rpm : 100 rack travel mm : 12.90 Tolerance mm : + 0.10
Rated speed rpm		Del. quantity cm3/1000 strokes : 76.5
Pressure hPa rack travel mm Tolerance mm	: 0.40	+ Tolerance - cm3/1000 strokes : +- 7.5 - Check tolerance
Pressure hPa rack travel mm Tolerance mm	: 1.35	+ cm3/1000s. : + 10.0
START CUT-OUT		LOW IDLE
Rated speed rpm Rated speed rpm		+ Del. quantity + cm3/1000 strokes : 11.0 + Tolerance
Check		+ cm3/1000 strokes : + 2.0 + Check tolerance
speed 1/min Check	: > 80	+ cm3/1000s. : +- 4.5 + Spreed
speed 1/min	: < 240	Tolerance : 5.5
FUEL DELIVERY CHA	ARACTERISTICS	+ Check tolerance cm3/1000s. : 9.0
Aneroid pressure hPa Rated speed rpm	: 900 : 800	
Del. quantity cm3/1000 strokes Tolerance		End of test specification sheet
cm3/1000 strokes Check tolerance cm3/1000s.	: +- 2.0 : +- 4.0	†
		1

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Test oil : 10.04.96

Combination No. : 9 400 085 355

Injection pump

Pump designation : PES6A100D120RS2841

EP type number : 9 400 084 033

Governor

Governer design. : RQV350...1400AB1272R

Governer no. : 9 420 080 344

Cust. part No. : 3355313

Customer-spec. information Customer : CUMMINS : 6 BT 140 : 105.0 Motor Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C

Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 bar

Tolerance bar : +- 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : +- 1.0

Prestroke mm : 2.90
Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : + 1.50 Difference ° CS : 3.50

BASIC SETTING

Rated speed rpm : 1400

Rack travel in mm: 8.85 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 81.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 3.0

	l Talanamaa
O	+ Tolerance
Spreed	+ cm3/1000 strokes : +- 1.0
Tolerance	+ Check tolerance
cm3/1000 strokes : 3.5	+ cm3/1000s. : +- 3.0
	+ Spreed
Check tolerance	+ Tolerance
cm3/1000s. : 6.0	+ cm3/1000 strokes : 3.5
	+ Check tolerance
Del. quantity	+ cm3/1000s. : 6.0
cm3/1000 strokes : 7.0	
Tolerance	1
cm3/1000 strokes : +- 2.0	
	T CONTROL LEVER
Check tolerance	T CONTROL LEVER
cm3/1000s. : +- 4.0	† , , ,
Spreed	+ control lever
Tolerance	+ position degree : 51.0
cm3/1000 strokes : 3.5	+ tolerance degree : +- 4.0
Check tolerance	+
cm3/1000s. : 5.5	+ control lever
	position degree : 106.0
	tolerance degree : + 4.0
(B) SETTING OF INJECTION PUMP	L Cotto and active active to the transfer of t
WITH GOVERNOR	A RATED SPEED
WITH GOVERNOR	T RATED SPEED
	7 200
	- rack travel mm : 7.80
GUIDE SLEEVE TRAVEL	Rated speed rpm : 1473
	† Tolerance 1/min : + 8
Rated speed rpm : 1400	†
guide sleeve	+ rack travel mm : 4.00
travel mm : 6.50	+ Rated speed rpm : 1635
Tolerance mm : +- 0.10	+ Tolerance 1/min : + 15
	1
Rated speed rpm : 1000	rack travel mm : 0.50
guide steeve	+ Tolerance mm : + 0.50
travel mm : 4.95	Rated speed rpm : 1800
	T Rated speed (pill : 1000
Tolerance mm : +- 0.25	Ť
D. A. d. a	†
Rated speed rpm : 350	
guide sleeve	+ LOW IDLE
travel mm : 1.95	†
Tolerance mm : + 0.25	+
	∔ control lever
Rated speed rpm : 600	† position degree : 71.0
guide steeve	+ tolerance degree : + 4.0
travel mm : 3.95	<u> </u>
Tolerance mm : + 0.25	↓ control lever
	position degree : 16.0
Rated speed rpm : 1650	tolerance degree : + 4.0
	T Ediciance degree 4.0
guide sleeve	Tooting
travel mm : 7.75	+ Testing:
Tolerance mm : +- 0.25	†
	Rated speed rpm : 350
	+ rack travel mm : 4.90 + Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	+ Tolerance mm : + 0.10
	+
Rated speed rpm : 1400	+ Rated speed rpm : 100
Aneroid pressure	1
hPa : -	← CRT mm min. : > 9.00
Del. quantity	J
cm3/1000 strokes : 81.0	Rated speed rpm : 450
CHID/ TOOU SCHOKES : OT.U	T vared sheed thin . 470

TORQUE CONTROL

Rated speed rpm	:	1400
rack travel mm	;	8.85
Tolerance mm	:	← 0.05

Rated speed r	om :	008
rack travel m	m :	8.85
Tolerance mm	;	+ 0.05

START CUT-OUT

Rated	speed	rpm	:	>	100
Rated	speed	rom	:	<	270

Check

speed 1/min 80

Check

speed 1/min : < 290

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa Rated speed rpm : 800

Del. quantity cm3/1000 strokes : 83.0

Tolerance

cm3/1000 strokes : +- 1.5

Check tolerance

cm3/1000s. : + 4.0

BREAKAWAY

Rack travel in mm : 7.80 Rated speed rpm : 1473 Tolerance 1/min : + 8

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : + 1.00 Tolerance mm Del. quantity cm3/1000 strokes : 173.0

Tolerance

cm3/1000 strokes : \leftarrow 7.0

Check tolerance

: + 10.0 cm3/1000s.

LOW IDLE

Del. quantity cm3/1000 strokes	:	7.0
Tolerance cm3/1000 strokes Check tolerance	: +-	2.0
cm3/1000s. Spreed	: +-	4.0
Tolerance cm3/1000 strokes	•	3.5
Check tolerance cm3/1000S.	•	5,5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 10.04.96 Test oil : ISO 4113

Combination No. : 9 400 085 356

Injection pump

Pump designation : PES6A85D410RS2756 EP type number : 9 400 093 006

Governor

Governer design. : RSV325...1150A1C1165

: L

Governer no. : 9 420 083 290

Cust. part No. :

Customer-spec. information Customer : DEUTZ ARG. Motor : BF6L913 Power KW : 118.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : +- 1.5

Test lines : 1 680 750 003

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values

BEGINNING OF DELIVERY

Test pressure bar : 32.0
Tolerance bar : +- 1.0

Prestroke mm : 1.95
Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 1150

Rack travel in mm : 11.35 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 73.0

Tolerance

cm3/1000 strokes : +- 0.5

Check tolerance

cm3/1000s. : +- 2.5

Spreed

Tolerance

cm3/1000 strokes : 3.0

Check tolerance

cm3/1000s. : 7.0

	1
Del. quantity	1
cm3/1000 strokes : 11.0	+
Tolerance	+
cm3/1000 strokes : +- 2.0 Check tolerance	†
cm3/1000s. : +- 4.0	I
Spreed	1
Tolerance	+
cm3/1000 strokes : 4.5	†
Check tolerance cm3/1000s. : 7.0	İ
CHIST 10000: 1.0	Ţ
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	† †
	- +
GUIDE SLEEVE POSITION	†
Rated speed rpm : 800	I
	+
Rack travel in mm: 0.65	+
Tolerance mm : + 0.35	Í
governor spring	+
pre-tension	+
click setting $x : 5.00$	†
	. I
FULL LOAD DELIVERY AT FULL LOAD STOP	+
Data day and many AAFO	+
Rated speed rpm : 1150 Aneroid pressure	Ī
hPa : -	1
Del. quantity	+
cm3/1000 strokes : 73.0	+
Tolerance cm3/1000 strokes : +- 0.5	1
	I
theck tolerance	
Check tolerance cm3/1000s. : +- 2.5	1
cm3/1000S. : +- 2.5 Spreed	+
cm3/1000S. : +- 2.5 Spreed Tolerance	+
<pre>cm3/1000s. : + 2.5 Spreed Tolerance cm3/1000 strokes : 3.0</pre>	+
cm3/1000S. : +- 2.5 Spreed Tolerance	+++++++++++++++++++++++++++++++++++++++
cm3/1000s. : + 2.5 Spreed Tolerance cm3/1000 strokes : 3.0 Check tolerance	+ + + + + + + + + + + + + + + + + + + +
cm3/1000s. : + 2.5 Spreed Tolerance cm3/1000 strokes : 3.0 Check tolerance	+++++++++++++++++++++++++++++++++++++++
cm3/1000s. : + 2.5 Spreed Tolerance cm3/1000 strokes : 3.0 Check tolerance	+++++++++++++++++++++++++++++++++++++++
cm3/1000s. : + 2.5 Spreed Tolerance cm3/1000 strokes : 3.0 Check tolerance cm3/1000s. : 7.0 CONTROL LEVER	
cm3/1000s. : + 2.5 Spreed Tolerance cm3/1000 strokes : 3.0 Check tolerance cm3/1000s. : 7.0 CONTROL LEVER control Lever	
cm3/1000s. : + 2.5 Spreed Tolerance cm3/1000 strokes : 3.0 Check tolerance cm3/1000s. : 7.0 CONTROL LEVER control lever position degree : 114.0	
cm3/1000s. : + 2.5 Spreed Tolerance cm3/1000 strokes : 3.0 Check tolerance cm3/1000s. : 7.0 CONTROL LEVER control lever position degree : 114.0 tolerance degree : + 4.0	
cm3/1000s. : + 2.5 Spreed Tolerance cm3/1000 strokes : 3.0 Check tolerance cm3/1000s. : 7.0 CONTROL LEVER control lever position degree : 114.0	
cm3/1000s. : + 2.5 Spreed Tolerance cm3/1000 strokes : 3.0 Check tolerance cm3/1000s. : 7.0 CONTROL LEVER control lever position degree : 114.0 tolerance degree : + 4.0 RATED SPEED	
cm3/1000s. : + 2.5 Spreed Tolerance cm3/1000 strokes : 3.0 Check tolerance cm3/1000s. : 7.0 CONTROL LEVER control lever position degree : 114.0 tolerance degree : + 4.0	

rack travel mm Rated speed rpm Tolerance 1/min	: 4.00 : 1235 : + 15
rack travel mm Tolerance mm Rated speed rpm	: +- 0.55
LOW IDLE	
control lever position degree tolerance degree	: 77.0 : +- 4.0
Setting point w/c	out bumper spring
Rated speed rpm rack travel mm	: 325 : 7.50
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 325 : 8.00 : + 0.10
rack travel mm Rated speed rpm Tolerance 1/min	
Rated speed rpm	: 100
CRT mm min.	: > 19.00
TORQUE CONTROL	kinggettin sidi Pandalan sapingan pagalam sidi kapada di ngambangan di nabihing minak
Rated speed rpm rack travel mm Tolerance mm	: 1150 : 11.35 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 500 : 13.05 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 800 : 12.35 : ← 0.15
FUEL DELIVERY CHA	RACTERISTICS

Tolerance 1/min : + 5

Aneroid pressure hPa 500 Rated speed rpm Del. quantity cm3/1000 strokes : 79.5 Tolerance cm3/1000 strokes : +-1.5 Check tolerance cm3/1000s. 3.5 Aneroid pressure hPa 008 Rated speed rpm Del. quantity cm3/1000 strokes : 76.5 Tolerance cm3/1000 strokes : +-1.5 Check tolerance cm3/1000s. 3.5 BREAKAWAY Rack travel in mm : 10.30 Rated speed rpm : 1195 Tolerance 1/min : + 5 STARTING FUEL DELIVERY 100 Rated speed rpm 20.00 rack travel mm : : +- 1.00 Tolerance mm LOW IDLE Del. quantity cm3/1000 strokes : 11.0 Tolerance 2.0 cm3/1000 strokes : +-Check tolerance cm3/1000s. 4.0 Spreed Tolerance 4.5 cm3/1000 strokes : Check tolerance 7.0 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 10.04.96 : ISO 4113 Test oil

Combination No. : 9 400 085 364

Injection pump

Pump designation : PES6A100D120RS2849 EP type number : 9 400 084 035

Governor

Governer design. : RSV450...900A1c2270R

Governer no. : 9 420 083 294

Cust. part No. : 3355362

Customer-spec. information Customer : CUMMINS Motor : 6 BT : 124.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 bar Tolerance bar

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm 2.80 Tolerance mm : +- 0.05 Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 : +- 1.50 Tolerance mm

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Beginning of delivery differende

and maximum rack

10.50 travel Tolerance mm : + 1.50 Difference * CS : 4.00

BASIC SETTING

Rated speed rpm 850

Rack travel in mm : 10.35 : + 0.05 Tolerance mm

Del. quantity cm3/1000 strokes : 119.0

Tolerance cm3/1000 strokes : +- 1.0

Check tolerance : +- 3.0

cm3/1000s.

		ţ		
Spreed		I	control lever	
Tolerance		1	position degree	: 93.0
cm3/1000 strokes	: 3.5	+	tolerance degree	: +- 4.0
~! ! . !		+		
Check tolerance	0.0	†	1007471 14 001/701/07	
cm3/1000s.	: 8.0	†	ASSEMBLY GOVERNOR	SELLING
Del. quantity		I	Rated speed rpm	: 915
cm3/1000 strokes	: 23.0	1	rack travel mm	9.30
Tolerance		+		
cm3/1000 strokes	: + 2.0	+	Rated speed rpm	: 944
Check tolerance cm3/1000s.	: +- 4.5	†	Tolerance 1/min rack travel mm	: +- 4
Spreed	; +- 4.5	I	rack cravet mm	4.00
Tolerance		1	rack travel mm	: 0.85
cm3/1000 strokes	: 5.5	+	Tolerance mm	: +- 0.55
Check tolerance		+	Rated speed rpm	: 1000
cm3/1000s.	: 9.0	†	Datad annal man	. 014
		İ	Rated speed rpm rack travel mm	: 916 : 9.30
(B) SETTING OF IN	JECTION PUMP	Ţ	I GON CI GYEL IIRII	. 7.50
WITH GOVERNOR		+	Rated speed rpm	: 945
		+	Tolerance 1/min	: +- 4
		†	rack travel mm	: 4.00
GUIDE SLEEVE POSIT	TTON	Ī	rack travel mm	: 0.85
GOTAL DECEME 1001	1 1014	1	Tolerance mm	: + 0.55
Rated speed rpm	: 800	+	Rated speed rpm	: 1000
		+		
Rack travel in mm		+	Rated speed rpm	: 917
Tolerance mm	: +- 0.35	Ī	rack travel mm	: 9.30
governor spring		1	Rated speed rpm	: 946
pre-tension		+	Tolerance 1/min	: +- 4
click setting x	: 3.50	+	rack travel mm	: 4.00
		İ	rack travel mm	: 0.85
FULL LOAD DELIVERY	Y AT FULL LOAD STOP	I	Tolerance mm	: +- 0.55
		+	Rated speed rpm	: 1000
Rated speed rpm	: 85 0	+		
Aneroid pressure		+	Rated speed rpm	: 918
hPa Del. quantity	-	İ	rack travel mm	: 9.30
cm3/1000 strokes	: 119.0	I	Rated speed rpm	: 947
Tolerance		1	Tolerance 1/min	: +- 4
cm3/1000 strokes	: +- 1.0	+	rack travel mm	: 4.00
Check tolerance		+		. 0.95
cm3/1000s. Spreed	: ← 3.0	Ī	rack travel mm Tolerance mm	: 0.85 : +- 0.55
Tolerance		Ţ	Rated speed rpm	1000
cm3/1000 strokes	: 3.5	+	that open the	
Check tolerance		+	Rated speed rpm	: 919
cm3/1000s.	: 8.0	+	rack travel mm	: 9.30
		力	Batad speed spe	: 948
		I	Rated speed rpm Tolerance 1/min	: 740 : +- 4
CONTROL LEVER		1	rack travel mm	4.00
		+		
		+	rack travel mm	: 0.85

Tolerance mm	: ← 0.55
Rated speed rpm	: 1000
Rated speed rpm	: 920
rack travel mm	: 9.30
Rated speed rpm	: 949
Tolerance 1/min	: +- 4
rack travel mm	: 4.00
rack travel mm	: 0.85
Tolerance mm	: + 0.55
Rated speed rpm	: 1000

LOW IDLE

control lever
position degree : 74.0
tolerance degree : + 4.0

Setting point w/out bumper spring

Rated speed rpm : 450 rack travel mm : 4.10

Testing:

Rated speed rpm : 450 rack travel mm : 4.60 Tolerance mm : + 0.10

rack travel mm : 2.00
Rated speed rpm : 480
Tolerance 1/min : +- 30

Rated speed rpm : 100

CRT mm min. : > 19.00

TORQUE CONTROL

Rated speed rpm : 850 rack travel mm : 10.35 Tolerance mm : + 0.05

Rated speed rpm : 550 rack travel mm : 10.40 Tolerance mm : + 0.10

Rated speed rpm : 400 rack travel mm : 11.60 Tolerance mm : +- 0.30

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 20.00
Tolerance mm : + 1.00
Del. quantity
cm3/1000 strokes : 169.0
Tolerance
cm3/1000 strokes : + 8.0
Check tolerance
cm3/1000s. : + 11.0

LOW IDLE

Del. quantity cm3/1000 strokes : 23.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance 5.5 cm3/1000 strokes : Check tolerance cm3/1000s. 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 10.04.96 Test oil : ISO 4113

Combination No. : 9 400 085 364DJ

Injection pump

Pump designation : PES6A100D120RS2849 EP type number : 9 400 084 035

Governor

Governer design. : RSV450...900A1C2270R

Governer no. : 9 420 083 294

Cust. part No. : 3355363-VERSA039

Customer—spec. information Customer : CUMMINS Motor : 6 BT Power KW : 101.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter ; 6.0

x inside diameter : 2.0
x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.80
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : +- 1.50
Difference ° CS : 4.00

BASIC SETTING

Rated speed rpm : 870

Rack travel in mm : 8.95
Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 95.5

Tolerance cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 3.0

Spreed Tolerance		† † †	control lever position degree	
cm3/1000 strokes	: 3.5	‡	tolerance degree	: +- 4.0
Check tolerance cm3/1000s.	: 8.0	+	ASSEMBLY GOVERNOR	SETTING
Del. quantity cm3/1000 strokes Tolerance	: 23.0	+	Rated speed rpm rack travel mm	
	: + 2.0	Ī	Rated speed rpm Tolerance 1/min	: 936 : + 4
cm3/1000s. Spreed	: +- 4.5	‡	rack travel mm	: 4.00
Tolerance cm3/1000 strokes Check tolerance	: 5.5	‡	rack travel mm Tolerance mm Rated speed rpm	: 0.85 : +- 0.55 : 1000
	9.0	Ī	Rated speed rpm	
(B) SETTING OF INJE	ECTION DIMO	+	rack travel mm	7.90
WITH GOVERNOR	ECTION FOMP	I I	Rated speed rpm Tolerance 1/min rack travel mm	: 937 : +- 4 : 4.00
GUIDE SLEEVE POSIT	ION	+	rack travel mm	: 0.85
Rated speed rpm	: 800	Ŧ	Tolerance mm Rated speed rpm	: +- 0.55 : 1000
Rack travel in mm : Tolerance mm :	: 0.65 : ← 0.35	Ŧ	Rated speed rpm rack travel mm	: 917 : 7.90
governor spring pre-tension click setting x	3.50	+++++++++++++++++++++++++++++++++++++++	Rated speed rpm Tolerance 1/min rack travel mm	: 938 : + 4 : 4.00
FULL LOAD DELIVERY	AT FULL LOAD STOP	+	rack travel mm Tolerance mm Rated speed rpm	: 0.85 : + 0.55 : 1000
Rated speed rpm : Aneroid pressure	870	1	Rated speed rpm	: 918
hPa Del. quantity	_	1	rack travel mm	: 7.90
cm3/1000 strokes : Tolerance	95.5	1	Rated speed rpm Tolerance 1/min	: 939 : ← 4
cm3/1000 strokes : Check tolerance	+ 1.0	1	rack travel mm	: 4.00
cm3/1000s. : Spreed Tolerance	+- 3.0	+	rack travel mm Tolerance mm Rated speed rpm	: 0.85 : + 0.55 : 1000
cm3/1000 strokes : Check tolerance	3.5	Ì	Rated speed rpm	: 919
cm3/1000s.	8.0	Ī	rack travel mm	7.90
		Ŧ	Rated speed rpm	: 940
CONTROL LEVER		Ŧ	Tolerance 1/min rack travel mm	: +- 4
		Į	rack travel mm	: 0.85

Tolerance mm : +- 0.55 Rated speed rom 1000 Rated speed rpm 920 7,90 rack travel mm 941 Rated speed rpm Tolerance 1/min 4 4.00 rack travel mm rack travel mm 0.85 Tolerance mm : +- 0.55 Rated speed rpm 1000

LOW IDLE

control lever position degree : 74.0 tolerance degree : +- 4.0

Setting point w/out bumper spring

Rated speed rpm : 450 rack travel mm : 4.10

Testing:

Rated speed rpm : 450 rack travel mm : 4.60 Tolerance mm : + 0.10

rack travel mm : 2.00
Rated speed rpm : 480
Tolerance 1/min : + 30

Rated speed rpm : 100

CRT mm min. : > 19.00

TORQUE CONTROL

Rated speed rpm : 870 rack travel mm : 8.95 Tolerance mm : + 0.05

Rated speed rpm : 550 rack travel mm : 9.00 Tolerance mm : + 0.10

Rated speed rpm : 400 rack travel mm : 10.70 Tolerance mm : +- 0.30

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 20.00
Tolerance mm : + 1.00
Del. quantity
cm3/1000 strokes : 169.0
Tolerance
cm3/1000 strokes : + 8.0
Check tolerance
cm3/1000s. : + 11.0

LOW IDLE

Del. quantity cm3/1000 strokes : 23.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.5 : +--Spreed Tolerance cm3/1000 strokes : 5.5 Check tolerance cm3/1000s. 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 10.04.96 Test oil : ISO 4113

Combination No. : 9 400 085 364EH

Injection pump

Pump designation : PES6A100D120RS2849 EP type number : 9 400 084 035

Governor

Governer design. : RSV450...900A1C2270R

Governer no. : 9 420 083 294

Cust. part No. : 3355525-VERSA047

Customer—spec. information Customer : CUMMINS Motor : 6 BT Power KW : 85.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.80
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : + 1.50
Difference °CS : 4.00

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm : 8.35
Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 92.5

Tolerance cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. : + 3.0

H23

Spreed Tolerance cm3/1000 strokes	; 3.5	- ‡ ‡	control lever position degree tolerance degree	: +-	87.0 4.0
Check tolerance cm3/1000s.	: 8.0	- ‡	ASSEMBLY GOVERNOR	SETT	ING
Del. quantity cm3/1000 strokes	: 23.0	‡	Rated speed rpm rack travel mm	:	762 7.30
Tolerance cm3/1000 strokes Check tolerance	: +- 2.0	‡	Rated speed rpm Tolerance 1/min	:	781 4
cm3/1000s. Spreed	: +- 4.5	‡	rack travel mm		4.00
Tolerance cm3/1000 strokes Check tolerance	: 5.5	+	rack travel mm Tolerance mm Rated speed rpm	: +	0.85 0.55 900
cm3/1000s.	: 9.0	Ī	Rated speed rpm	:	763
(B) SETTING OF IN	JECTION PUMP	+	rack travel mm	:	7.30
WITH GOVERNOR		‡	Rated speed rpm Tolerance 1/min rack travel mm	: +	782 4 4.00
GUIDE SLEEVE POST	TION	Ī	rack travel mm Tolerance mm	:	0.85
Rated speed rpm	: 800	Ī	Rated speed rpm		900
Rack travel in mm Tolerance mm	: 0.65 : + 0.35	+	Rated speed rpm rack travel mm	:	764 7.30
governor spring pre-tension	7.50	Ŧ	Rated speed rpm Tolerance 1/min	: +-	783 4
click setting x	: 3.50	Ŧ	rack travel mm	:	4.00 0.85
FULL LOAD DELIVER' Rated speed rpm	Y AT FULL LOAD STOP	Ŧ	Tolerance mm Rated speed rpm	: +-	0.55 900
Aneroid pressure hPa Del. quantity	: -	-	Rated speed rpm rack travel mm	•	765 7.30
cm3/1000 strokes Tolerance	: 92.5	Ŧ	Rated speed rpm Tolerance 1/min	: +-	784 4
cm3/1000 strokes Check tolerance	: + 1.0	‡	rack travel mm	•	4.00
cm3/1000s. Spreed Tolerance	: + 3.0	‡	rack travel mm Tolerance mm Rated speed rpm	+	0.85 0.55 900
cm3/1000 strokes Check tolerance cm3/1000s.	: 3.5 : 8.0	+	Rated speed rpm rack travel mm	:	766 7.30
THE TEST OF		‡	Rated speed rpm	:	785
CONTROL LEVER		+	Tolerance 1/min rack travel mm	: +-	4 4.00
		‡	rack travel mm	:	0.85

Tolerance mm : +- 0.55 900 Rated speed rpm Rated speed rom 767 rack travel mm 7.30 786 Rated speed rpm Tolerance 1/min 4 rack travel mm 4.00 rack travel mm 0.85 Tolerance mm 0.55 900 Rated speed rpm

LOW IDLE

control lever
position degree : 74.0
tolerance degree : + 4.0

Setting point w/out bumper spring

Rated speed rpm : 450 rack travel mm : 4.10

Testing:

Rated speed rpm : 450 rack travel mm : 4.60 Tolerance mm : + 0.10

rack travel mm : 2.00
Rated speed rpm : 480
Tolerance 1/min : + 30

Rated speed rpm : 100

CRT mm min. : > 19.00

TORQUE CONTROL

Rated speed rpm : 700 rack travel mm : 8.35 Tolerance mm : + 0.05

Rated speed rpm : 550 rack travel mm : 8.40 Tolerance mm : + 0.10

Rated speed rpm : 400 rack travel mm : 10.00 Tolerance mm : + 0.30

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 20.00
Tolerance mm : +- 1.00
Del. quantity
cm3/1000 strokes : 169.0
Tolerance
cm3/1000 strokes : +- 8.0
Check tolerance
cm3/1000s. : +- 11.0

LOW IDLE

Del. quantity cm3/1000 strokes : 23.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance 5.5 cm3/1000 strokes : Check tolerance cm3/1000s. 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 10.04.96 Test oil : ISO 4113

Combination No. : 9 400 085 364EI

Injection pump

Pump designation : PES6A100D120RS2849

EP type number : 9 400 084 035

Governor

Governer design. : RSV450...900A1C2270R

Governer no. : 9 420 083 294

Cust. part No. : 3355524-VERSA048

Customer-spec. information
Customer : CUMMINS
Motor : 6 BT
Power KW : 105.8

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.80
Tolerance mm : + 0.05
Check
tolerance mm : + 0.10

Rack travel in mm : 10.50
Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : + 1.50
Difference °CS : 4.00

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm : 10.25
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 123.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : + 3.0

		,		
Spreed Tolerance cm3/1000 strokes	: 3.5	control lever position degree tolerance degree		87.0 4.0
Check tolerance cm3/1000s.	: 8.0	ASSEMBLY GOVERNO	R SETT	ING
Del. quantity cm3/1000 strokes	: 23.0	Rated speed rpm rack travel mm	:	755 9.20
Tolerance cm3/1000 strokes Check tolerance	: +- 2.0	Rated speed rpm Tolerance 1/min	: +	786 4
cm3/1000s. Spreed	: +- 4.5	rack travel mm	:	4.00
Tolerance cm3/1000 strokes Check tolerance	: 5.5	rack travel mm Tolerance mm Rated speed rpm	: +-	0.85 0.55 900
cm3/1000s.	: 9.0	Rated speed rpm	•	756
(B) SETTING OF IN	JECTION PLIMP	† rack travel mm	:	9.20
WITH GOVERNOR	0E012014 OF#	Rated speed rpm Tolerance 1/min rack travel mm	: : +-	787 4 4.00
GUIDE SLEEVE POSI	TION	rack travel mm	:	0.85
Rated speed rpm	: 800	Tolerance mm Rated speed rpm	: +-	0.55 900
Rack travel in mm Tolerance mm	: 0.65 : + 0.35	Rated speed rpm rack travel mm	•	757 9.20
governor spring		Rated speed rpm	•	788
pre-tension click setting x	: 3.50	Tolerance 1/min rack travel mm	: +-	4 4.00
FULL LOAD DELIVERY	Y AT FULL LOAD STOP	rack travel mm Tolerance mm	: +-	0.85 0.55
Rated speed rpm	: 700	Rated speed rpm	:	900
Aneroid pressure hPa	: -	Rated speed rpm rack travel mm	•	758 9.20
Del. quantity cm3/1000 strokes Tolerance	: 123.0	Rated speed rpm Tolerance 1/min	: +-	789 4
cm3/1000 strokes	: ← 1.0	rack travel mm	•	4.00
Check tolerance cm3/1000s. Spreed	: +- 3.0	rack travel mm Tolerance mm	:	0.85
Tolerance		Rated speed rpm		900
cm3/1000 strokes Check tolerance	: 3.5	Rated speed rpm	:	759
cm3/1000s.	: 8.0	rack travel mm	:	9.20
		Rated speed rpm	:	790
CONTROL LEVER		Tolerance 1/min rack travel mm	: +-	4 4.00
		rack travel mm	:	0.85

: +~ 0.55 Tolerance mm Rated speed rpm : 900 Rated speed rpm : 760 rack travel mm 9.20 791 Rated speed rpm : Tolerance 1/min : + rack travel mm 4.00 0.85 rack travel mm : +- 0.55 Tolerance mm Rated speed rpm : 900

LOW IDLE

control lever position degree : 74.0 tolerance degree : +- 4.0

Setting point w/out bumper spring

Rated speed rpm : 450 rack travel mm : 4.10

Testing:

Rated speed rpm : 450 rack travel mm : 4.60 Tolerance mm : + 0.10

rack travel mm : 2.00
Rated speed rpm : 480
Tolerance 1/min : + 30

Rated speed rpm : 100

CRT mm min. : > 19.00

TORQUE CONTROL

Rated speed rpm : 700 rack travel mm : 10.25 Tolerance mm : + 0.05

Rated speed rpm : 550 rack travel mm : 10.30 Tolerance mm : + 0.10

Rated speed rpm : 400 rack travel mm : 11.20 Tolerance mm : + 0.30

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 20.00
Tolerance mm : + 1.00
Del. quantity
cm3/1000 strokes : 169.0
Tolerance
cm3/1000 strokes : + 8.0
Check tolerance
cm3/1000s. : + 11.0

LOW IDLE

Del. quantity cm3/1000 strokes : 23.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance cm3/1000 strokes : 5.5 Check tolerance cm3/1000s. 9.0 :

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 10.04.96 Test oil : ISO 4113

Combination No. : 9 400 085 365

Injection pump

Pump designation : PES6A90D410RS2823 EP type number : 0 410 896 093

Governor

Governer design. : RQV300...1350AB1278L

Governer no. : 9 420 080 359

Cust. part No. : 98455951

Customer-spec. information

Customer : FIAT ARGENTINA Motor : 8.060.25.600

Power KW : 130.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. *C : 40 Tolerance *C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.80 Tolerance mm : +- 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5- 3- 6- 2-

: 4

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 1350

Rack travel in mm : 11.55
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 82.0

Tolerance

cm3/1000 strokes : +- 0.5

Check tolerance

cm3/1000s. : + 2.5

Spreed

Tolerance

cm3/1000 strokes : 3.0

Check tolerance

cm3/1000s. : 7.0

	- · ·
Dol gumphih.	Del. quantity cm3/1000 strokes : 82.0
Del. quantity + cm3/1000 strokes : 10.0 +	Tolerance
Tolerance	cm3/1000 strokes : + 0.5
cm3/1000 strokes : +- 2.0 +	Check tolerance
Check tolerance	cm3/1000s. : +- 2.5
cm3/1000s. : + 4.0 +	Spreed
Spreed	Tolerance
Tolerance + cm3/1000 strokes : 4.5	cm3/1000 strokes : 3.0 Check tolerance
Check tolerance	cm3/1000s. : 7.0
cm3/1000s. : 7.0	110
+	
+	
(B) SETTING OF INJECTION PUMP	CONTROL LEVER
WITH GOVERNOR	control lever
	position degree : 116.0
GUIDE SLEEVE TRAVEL	tolerance degree : +- 4.0
+	
Rated speed rpm : 300	RATED SPEED
guide steeve	most took most 40 F0
travel mm : 1.25 + Tolerance mm : + 0.25	rack travel mm : 10.50 Rated speed rpm : 1395
Toterance man : + 0.25	Tolerance 1/min : + 5
Rated speed rpm : 1015	TO COT GITTO TO THE TOTAL OF TH
guide steeve	rack travel mm : 4.00
travel mm : 6.05	Rated speed rpm : 1530
Tolerance mm : + 0.25	Tolerance 1/min : +- 15
Rated speed rpm : 460	rack travel mm : 0.50
Rated speed rpm : 460 + guide sleeve +	Tolerance min : + 0.50
travel mm : 2.45	Rated speed rpm : 1650
Tolerance mm : + 0.25	
+	
Rated speed rpm : 640	I OU TOUR
guide sleeve + travel mm : 3.45 +	LOW IDLE
Tolerance mm : +- 0.25	
10001 01100 11111	control lever
Rated speed rpm : 1390	position degree : 71.0
guide sleeve +	tolerance degree : +- 4.0
travel mm : 8.45	Tanting
Tolerance mm : + 0.25	Testing:
	Rated speed rpm : 300
GUIDE SLEEVE POSITION	rack travel mm : 7.60
+	Tolerance mm : +- 0.10
Rated speed rpm : 1480 +	
Fact toward in ma . 12.20	Rated speed rpm : 200
Rack travel in mm: 12.20 + 1.80 +	CRT mm min. :> 8.00
Toterarice in the first	
	Rated speed rpm : 400
FULL LOAD DELIVERY AT FULL LOAD STOP	•
+	
Rated speed rpm : 1350	TORQUE CONTROL
Aneroid pressure + 800 +	Rated speed rpm : 1350
hPa : 800	rack travel mm : 13.50
T	TOUR STORES ON THE

was a	. 0.05	
Tolerance mm	: - 0.05	+ Del. quantity + cm3/1000 strokes : 81.5
Rated speed rpm	: 500	Tolerance
rack travel mm	12.55	+ cm3/1000 strokes : + 1.5
rack travel mm Tolerance mm	: + 0.05	+ Check tolerance
		+ cm3/1000s. : $+$ 3.5
Rated speed rpm	: 800	†,
rack travel mm		† Aneroid pressure
Tolerance mm	; +- 0.10	+ hPa : - + Rated speed rpm : 500
Rated speed rpm	• 900	Del. quantity
rack travel mm	11.70	- cm3/1000 strokes : 50.0
Tolerance mm		+ Tolerance
		+ cm3/1000 strokes : + 0.5
		
ANERCID/ALTITUDE		+ cm3/1000s. : + 2.5
COMPENSATOR TEST		
		BREAKAWAY
SETTING		WINGING !
		+
Rated speed rpm	: 500	Rack travel in mm : 10.50
Pressure hPa	: 800	Rated speed rpm : 1395
rack travel mm	: 12.55	+ Tolerance 1/min : + 5
Tolerance mm	: + 0.05	†
MEASUREMENT		I
1 IEMOVINENTI		STARTING FUEL DELIVERY
Pressure hPa	: -	The second secon
Rated speed rpm	: 500	Rated speed rpm : 100
rack travel mm	: 10.40	+ rack travel mm : 20.00
Tolerance mm		+ Tolerance mm : +- 1.00
	500	+ Del. quantity
Rated speed rpm	: 500	cm3/1000 strokes : 156.0
Pressure hPa	: 520	+ cm3/1000 strokes : +- 8.0
rack travel mm		+ Check tolerance
Tolerance mm		+ cm3/1000s. : +- 11.0
		+
Pressure hPa		+
rack travel mm	: 10.75	†
Tolerance mm	: +- 0.05	LOW IDLE
START CUT-OUT		Del. quantity
		+ cm3/1000 strokes : 10.0
Rated speed rpm		+ Tolerance
Rated speed rpm	: < 220	+ cm3/1000 strokes : + 2.0
Observed		+ Check tolerance
Check		+ cm3/1000s. : + 4.0
speed 1/min Check	: > 80	+ Spreed + Tolerance
speed 1/min	: < 240	+ cm3/1000 strokes : 4.5
Specu 1/01/11		Check tolerance
FUEL DELIVERY CHA	ARACTERISTICS	+
Annuald annual		†
Aneroid pressure hPa	: 800	Ī
Rated speed rpm		
varen sheen Lhii	. 000	1

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 10.04.96 Test oil : ISO 4113

Combination No. : 9 400 085 367

Injection pump

Pump designation : PES6A95D410RS2812 EP type number : 9 400 084 028

Governor

Governer design. : RQV350...1250AB1280L

Governer no. : 9 420 080 365

Cust. part No. : 9.0520.05.6.9505

Customer—spec. information Customer : MWM Motor : 6.10 T Power KW : 135.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length om : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.80
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : + 1.50
Difference * CS : 2.00

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 12.05 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 96.5

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. : + 3.0

Ommand		-
Spreed Tolerance cm3/1000 strokes	; 3.5	- FULL LOAD DELIVERY AT FULL LOAD STOP - Rated speed rpm : 1250
Check tolerance cm3/1000s.	: 8.0	- Aneroid pressure - hPa : 900 - Del. quantity
Del. quantity cm3/1000 strokes Tolerance	: 16.0	- cm3/1000 strokes : 96.5 - Tolerance - cm3/1000 strokes : ← 1.0
cm3/1000 strokes Check tolerance	: + 2.0	- Check tolerance - cm3/1000s. : + 3.0
cm3/1000s. Spreed	: +- 4.5	Spreed Tolerance
Tolerance cm3/1000 strokes	: 5.5	cm3/1000 strokes : 3.5 Check tolerance
Check tolerance cm3/1000s.	: 9.0	- cm3/1000s. : 8.0
(B) SETTING OF IN	JECTION PUMP	CONTROL LEVER
WITH GOVERNOR		control lever position degree : 55.0
GUIDE SLEEVE TRAV	/EL +	tolerance degree : +- 4.0
Rated speed rpm guide sleeve	: 1350	control lever position degree : 110.0
travel mm Tolerance mm	: 7.20 : ← 0.10	tolerance degree : +- 4.0
Rated speed rpm	: 800	RATED SPEED rack travel mm : 11.00
guide sleeve travel mm Tolerance mm	: 3.95 : + 0.25	Rated speed rpm : 1318 Tolerance 1/min : +- 8
Rated speed rpm guide sleeve	: 300	rack travel mm : 4.00 Rated speed rpm : 1480
travel mm Tolerance mm	: 1.05 : + 0.25	Tolerance 1/min : +- 15
Rated speed rpm guide sleeve	: 550	rack travel mm : 0.50 Tolerance mm : +- 0.50 Rated speed rpm : 1650
travel mm Tolerance mm	: 2.75 : + 0.25	
Rated speed rpm guide sleeve	: 1500	LOW IDLE
travel mm Tolerance mm	: 8.55 : + 0.25	control lever
	+	position degree : 69.0 tolerance degree : +- 4.0
GUIDE SLEEVE POSI	TION	control lever
Rated speed rpm	: 1490	position degree : 14.0 tolerance degree : +- 4.0
Rack travel in mm Tolerance mm		Testing:

Rated speed rpm rack travel mm Tolerance mm	: 350 : 6.10 : + 0.10	Check speed 1/min : < 290
Rated speed rpm	: 100	FUEL DELIVERY CHARACTERISTICS
CRT mm min.	: > 8.50	Aneroid pressure hPa : 900
Rated speed rpm	: 400	Rated speed rpm : 750 Del. quantity cm3/1000 strokes : 97.5
TORQUE CONTROL		Tolerance cm3/1000 strokes : + 2.0
Rated speed rpm rack travel mm Tolerance mm	: 12.05	Check tolerance cm3/1800s. : +- 4.0
Rated speed rpm rack travel mm Tolerance mm	: 750 : 12.45 : + 0.05	Aneroid pressure hPa : 900 Rated speed rpm : 1050 Del. quantity cm3/1000 strokes : 99.5
Rated speed rpm rack travel mm Tolerance mm	: 12.25	Tolerance cm3/1000 strokes : +- 2.0 Check tolerance cm3/1000s. : +- 4.0
ANEROID/ALTITUDE COMPENSATOR TEST		Aneroid pressure hPa : - Rated speed rpm : 500 Del. quantity
SETTING		cm3/1000 strokes : 49.0 Tolerance
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 900 : 12.45	cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 3.0
MEASUREMENT		BREAKAWAY
Pressure hPa Rated speed rpm Rated speed rpm	: 500	Rack travel in mm : 11.00 Rated speed rpm : 1318 Tolerance 1/min : +- 8
Pressure hPa rack travel mm Tolerance mm	: 520 : 2.25 : + 0.15	STARTING FUEL DELIVERY
Pressure hPa rack travel mm Tolerance mm	: 260 : 0.80 : + 0.10	Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : + 1.00 Del. quantity cm3/1000 strokes : 155.0
START CUT-OUT		Tolerance + cm3/1000 strokes : +- 8.0
Rated speed rpm Rated speed rpm		Check tolerance cm3/1000s. : + 11.0
Check speed 1/min	: > 80	‡

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LOW IDLE

Del. quantity
cm3/1000 strokes : 16.0
Tolerance
cm3/1000 strokes : + 2.0
Check tolerance
cm3/1000s. : + 4.5
Spreed
Tolerance
cm3/1000 strokes : 5.5
Check tolerance
cm3/1000s. : 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 10.04.96 Test oil : ISO 4113

Combination No. : 9 400 085 368

Injection pump

Pump designation : PES3A80D320RS1281 EP type number : 9 400 083 054

Governor

Governer design. : RSV350...900A7C627R

Governer no. : 9 420 083 264

Cust. part No. : 9.0520.05.3.8063

Customer—spec. information Customer : MWM Motor : D229.3 Power KW : 32.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 003

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.25
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 10.50Tolerance mm : \leftarrow 1.50

Firing order : 1- 2- 3

Phasing : 0-120-240

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : + 1.50
Difference ° CS : 4.50

BASIC SETTING

Rated speed rpm : 900

Rack travel in mm : 10.25
Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 52.0

Tolerance cm3/1000 strokes : +- 0.5

Check tolerance cm3/1000s. : +- 2.0

Spreed		+			
Tolerance cm3/1000 strokes	: 2.5	Ī	CONTROL LEVER		
Check tolerance cm3/1000s.	: 4.0	1	control lever position degree tolerance degree	: : +-	111.0 4.0
Rated speed rpm	: 350	<u> </u>	J		
Rack travel in mm Tolerance mm	: 7.40 : +- 0.10	1	ASSEMBLY GOVERNOR	SETTI	NG
Del. quantity		+	Rated speed rpm	:	940 9.20
cm3/1000 strokes Tolerance		Ŧ	rack travel mm	•	
cm3/1000 strokes Check tolerance	: + 1.5	‡	Rated speed rpm Tolerance 1/min	: : +	969 4
cm3/1000s. Spreed	: +- 3.5	‡	rack travel mm	:	4.00
Tolerance cm3/1000 strokes	: 4.0	<u> </u>	rack travel mm Tolerance mm	: : +-	0.85 0.55
Check tolerance	: 6.0	1	Rated speed rpm		1100
		+	Rated speed rpm rack travel mm	•	941 9.20
(B) SETTING OF INJE WITH GOVERNOR	ECTION PUMP	+++++++++++++++++++++++++++++++++++++++	Rated speed rpm Tolerance 1/min rack travel mm	: : +-	970 4 4.00
GUIDE SLEEVE POSITI	ION	Ŧ	rack travel mm	:	0.85 0.55
Rated speed rpm	: 800	I	Tolerance mm Rated speed rpm		1100
Rack travel in mm : Tolerance mm :	: 0.65 : + 0.35	I	Rated speed rpm rack travel mm	:	942 9.20
governor spring pre-tension click setting x	: 6.00	+	Rated speed rpm Tolerance 1/min rack travel mm	: +-	971 4 4.00
FULL LOAD DELIVERY	AT FILL LOAD STOP	Ì	rack travel mm Tolerance mm	:	0.85 0.55
	: 900	+	Rated speed rpm		1100
Rated speed rpm : Aneroid pressure hPa :	. 700	Ī	Rated speed rpm rack travel mm	: :	943 9.20
Del. quantity		Ŧ		•	
cm3/1000 strokes : Tolerance		Ŧ	Rated speed rpm Tolerance 1/min	: +-	972 4
Check tolerance	: +- 0.5	‡	rack travel mm	•	4.00
cm3/1000S. : Spreed Tolerance	2.0	‡	rack travel mm Tolerance mm Rated speed rpm		0.85 0.55 1100
cm3/1000 strokes : Check tolerance	2.5	1	Rated speed rpm	•	944
cm3/1000s. :	4.0	İ	rack travel mm	:	9.20
		‡	Rated speed rpm Tolerance 1/min	: : +-	973 4

rack travel mm : 4.00 0.85 rack travel mm : +- 0.55 Tolerance mm 1100 Rated speed rpm 945 Rated speed rpm rack travel mm 9,20 974 Rated speed rpm Tolerance 1/min rack travel mm 4.00 0.85 rack travel mm : +- 0.55 Tolerance mm

LOW IDLE

control lever position degree : 79.0 tolerance degree : +- 4.0

Rated speed rpm :

Setting point w/out bumper spring

1100

Rated speed rpm : 350 rack travel mm : 5.50

Testing:

Rated speed rpm : 350 rack travel mm : 6.00 Tolerance mm : + 0.10

rack travel mm : 2.00
Rated speed rpm : 450
Tolerance 1/min : + 30

Rated speed rpm : 100

CRT mm min. : > 19.00

TORQUE CONTROL

Rated speed rpm : 900 rack travel mm : 10.25 Tolerance mm : + 0.05

Rated speed rpm : 500 rack travel mm : 10.30 Tolerance mm : + 0.10

Rated speed rpm : 400 rack travel mm : 11.20 Tolerance mm : +- 0.30

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : + 1.00

LOW IDLE

Rated speed rpm	:		350
rack travel mm	•		7.40
Tolerance mm	:	+	0.10
Del. quantity			
cm3/1000 strokes	:		9.5
Tolerance			
cm3/1000 strokes	:	+-	1.5
Check tolerance			
cm3/1000s.	:	+-	3.5
Spreed			
Tolerance			
cm3/1000 strokes	:		4.0
Check tolerance			
cm3/1000s.			6.0
	-		

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 10.04.96 Edition : ISO 4113 Test oil

Combination No. : 9 400 085 369

Injection pump

Pump designation : PES4A80D320RS1282 EP type number : 9 400 083 056

Governor

Governer design. : RSV350...900A7C627R

: 9 420 083 264 Governer no.

: 90520.05.4.8065 Cust. part No.

Customer-spec. information Customer : MWM Motor : 0.229-4 Power KW 34.3

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 bar : +- 1.5 Tolerance bar

: 1 680 750 003 Test lines

Outside diameter : 6.0 x inside diameter: 2.0 x length mm : ഹവ

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar 1.0

2.25 Prestroke mm Tolerance mm : + 0.05Check

tolerance mm

: + 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

: 1-3-4-2 Firing order

Phasing : 0-90-180-270

Beginning of delivery differende

and maximum rack

travel 10.50 : +- 1.50 Tolerance mm Difference ° CS 4.50

BASIC SETTING

900 Rated speed rpm

10.25 Rack travel in mm : Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes 52.0

Tolerance cm3/1000 strokes : +-0.5

Check tolerance

: +-2.0 cm3/1000s.

Spreed	+
Tolerance cm3/1000 strokes : 2.5	CONTROL LEVER
Check tolerance cm3/1000s. : 4.0	control lever position degree : 111.0
Rated speed rpm : 350	tolerance degree : +- 4.0
Rack travel in mm : 7.40 Tolerance mm : + 0.10	ASSEMBLY GOVERNOR SETTING
Del. quantity cm3/1000 strokes : 9.5	Rated speed rpm : 940 rack travel mm : 9.20
Tolerance cm3/1000 strokes : +- 1.5 Check tolerance	Rated speed rpm : 969 Tolerance 1/min : +- 4
cm3/1000s. : + 3.5 Spreed	rack travel mm : 4.00
Tolerance cm3/1000 strokes : 4.0 Check tolerance	+ rack travel mm : 0.85 + Tolerance mm : +- 0.55 + Rated speed rpm : 1100
cm3/1000s. : 6.0	Rated speed rpm : 941
(B) SETTING OF INJECTION PUMP	rack travel mm : 9.20
WITH GOVERNOR	Rated speed rpm : 970 Tolerance 1/min : +- 4 rack travel mm : 4.00
GUIDE SLEEVE POSITION	rack travel mm : 0.85
Rated speed rpm : 800	Tolerance mm : + 0.55 Rated speed rpm : 1100
Rack travel in mm : 0.65 Tolerance mm : + 0.35	Rated speed rpm : 942 rack travel mm : 9.20
governor spring pre-tension	Rated speed rpm : 971 Tolerance 1/min : +- 4
click setting x : 6.00	+ rack travel mm : 4.00
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1100
Rated speed rpm : 900 Aneroid pressure	Rated speed rpm : 943
hPa : - Del. quantity	rack travel mm : 9.20
cm3/1000 strokes : 52.0 Tolerance	+ Rated speed rpm : 972 + Tolerance 1/min : + 4
cm3/1000 strokes : +- 0.5 Check tolerance cm3/1000s. : +- 2.0	rack travel mm : 4.00 rack travel mm : 0.85
Spreed Tolerance	Tolerance mm : + 0.55 Rated speed rpm : 1100
cm3/1000 strokes : 2.5 Check tolerance	Rated speed rpm : 944
cm3/1000s. : 4.0	rack travel mm : 9.20 Rated speed rpm : 973
	+ Rated speed rpm : 973 + Tolerance 1/min : +- 4

rack travel mm : 4.00 rack travel mm 0.85 Tolerance mm : + 0.55 Rated speed rpm 1100 Rated speed rpm 945 rack travel mm 9.20 974 Rated speed rom : Tolerance 1/min 4 rack travel mm 4.00 rack travel mm 0.85 - 0.55 Tolerance mm

LOW IDLE

Rated speed rpm

control lever position degree : 79. tolerance degree : + 4.

Setting point w/out bumper spring

1100

Rated speed rpm : 350 rack travel mm : 5.50

Testing:

Rated speed rpm : 350 rack travel mm : 6.00 Tolerance mm : + 0.10

rack travel mm : 2.00
Rated speed rpm : 450
Tolerance 1/min : + 30

Rated speed rpm : 100

CRT mm min. :> 19.00

TORQUE CONTROL

Rated speed rpm : 900 rack travel mm : 10.25 Tolerance mm : +- 0.05

Rated speed rpm : 500 rack travel mm : 10.30 Tolerance mm : + 0.10

Rated speed rpm : 400 rack travel mm : 11.20 Tolerance mm : + 0.30

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : + 1.00

LOW IDLE

Rated speed rpm 350 rack travel mm 7.40 Tolerance mm : + 0.10Del. quantity cm3/1000 strokes : 9.5 Tolerance cm3/1000 strokes : +-1.5 Check tolerance cm3/1000s. 3.5 Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. 6.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 10.04.96 Edition Test oil : ISO 4113

Combination No. : 9 400 085 370

Injection pump

Pump designation : PES6A80D320RS1271 EP type number : 9 400 083 058

Governor

Governer design. : RSV350...900A7C627R

Governer no. : 9 420 083 264

Cust. part No. : 9.0520.05.6.8063

Customer-spec. information Customer : MWM : D229-6 Motor Power KW : 61.9

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 Tolerance bar

Test lines : 1 680 750 003

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm 2.25 : + 0.05 Tolerance mm Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50 : +- 1.50 Tolerance mm

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

Beginning of delivery differende

and maximum rack

10.50 travel Tolerance mm : +- 1.50 Difference ° CS : 4.50

BASIC SETTING

Rated speed rpm : 900

Rack travel in mm: 10.25 : +- 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 52.0

Tolerance

cm3/1000 strokes : + 0.5

Check tolerance cm3/1000s. : + 2.0 +	
Spreed	CONTROL LEVER
Tolerance + cm3/1000 strokes : 2.5	control lever position degree : 111.0
Check tolerance cm3/1000s. : 4.0	tolerance degree : +- 4.0
Rated speed rpm : 350	ASSEMBLY GOVERNOR SETTING
Rack travel in mm: 7.40 Tolerance mm: + 0.10 Del. quantity	Rated speed rpm : 940 rack travel mm : 9.20
cm3/1000 strokes : 9.5 Tolerance cm3/1000 strokes : + 1.5	Rated speed rpm : 969 Tolerance 1/min : + 4 rack travel mm : 4.00
Check tolerance cm3/1000s. : + 3.5	rack travel mm : 0.85
Spreed Tolerance	Tolerance mm : + 0.55 Rated speed rpm : 1100
cm3/1000 strokes : 4.0 + Check tolerance cm3/1000s. : 6.0	Rated speed rpm : 941 rack travel mm : 9.20
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Rated speed rpm : 970 Tolerance 1/min : +- 4 rack travel mm : 4.00
	rack travel mm : 0.85 Tolerance mm : + 0.55
GUIDE SLEEVE POSITION	Rated speed rpm : 1100
Rated speed rpm : 800	Rated speed rpm : 942 rack travel mm : 9.20
Rack travel in mm : 0.65 Tolerance mm : + 0.35	Rated speed rpm : 971 Tolerance 1/min : +- 4
governor spring pre-tension	rack travel mm : 4.00
click setting x : 6.00	rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1100
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 943
Rated speed rpm : 900 +	rack travel mm : 9.20
hPa : - +	Rated speed rpm : 972 Tolerance 1/min : +- 4
cm3/1000 strokes : 52.0 +	rack travel mm : 4.00
cm3/1000 strokes : + 0.5 Check tolerance	rack travel mm : 0.85 Tolerance mm : +- 0.55
cm3/1000s. : + 2.0 + Spreed	Rated speed rpm : 1100
Tolerance cm3/1000 strokes : 2.5	Rated speed rpm : 944 rack travel mm : 9.20
Check tolerance cm3/1000s. : 4.0 +	Rated speed rpm : 973

Tolerance 1/min	: + 4
rack travel mm	: 4.00
rack travel mm	: 0.85
Tolerance mm	: ← 0.55
Rated speed rpm	: 1100
Rated speed rpm	: 945
rack travel mm	: 9.20
Rated speed rpm	: 974
Tolerance 1/min	: + 4
rack travel mm	: 4.00
rack travel mm	: 0.85
Tolerance mm	: + 0.55
Rated speed rpm	: 1100

LOW IDLE

control lever
position degree : 79.0
tolerance degree : + 4.0

Setting point w/out bumper spring

Rated speed rpm : 350 rack travel mm : 5.50

Testing:

Rated speed rpm : 350 rack travel mm : 6.00 Tolerance mm : + 0.10

rack travel mm : 2.00
Rated speed rpm : 450
Tolerance 1/min : + 30

Rated speed rpm : 100

CRT mm min. : > 19.00

TORQUE CONTROL

Rated speed rpm : 900 rack travel mm : 10.25 Tolerance mm : + 0.05

Rated speed rpm : 500 rack travel mm : 10.30 Tolerance mm : + 0.10

Rated speed rpm : 400 rack travel mm : 11.20 Tolerance mm : +- 0.30

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : + 1.00

LOW IDLE

	50
rack travel mm :	7.40
Tolerance mm : +- (0.10
Del. quantity	
cm3/1000 strokes :	9.5
Tolerance	
cm3/1000 strokes : +-	1.5
Check tolerance	
cm3/1000s. : +-	3.5
Spreed	
Tolerance	
cm3/1000 strokes :	4.0
Check tolerance	
cm3/1000s. :	6.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 08.04.96 Test oil : ISO 4113

Combination No. : 9 400 085 372

Injection pump

Pump designation : PES6A95D410RS2772 EP type number : 9 400 084 018

Governor

Governer design. : RQV300...1300AB1283L

Governer no. : 9 420 080 367

Cust. part No. :

Customer-spec. information

Customer : MBB

: OM 366 LA Motor

: 155.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 bar Tolerance bar

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 26.0 Tolerance bar : + 1.0

3.25 Prestroke mm : +- 0.05 Tolerance mm

Check

: +- 0.10 tolerance mm

Rack travel in mm : 10.50 Tolerance mm : + 1.50

: 1-5-3-6-2-Firing order

: 4

: 0-60-120-180-240 Phasing

: -300

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 11.65

Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 106.0

Tolerance cm3/1000 strokes : +- 0.5

Check tolerance

cm3/1000s. : +-2.5

Spreed Tolerance

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s.

8.0

1	Spand
Del. quantity	Spreed Tolerance
cm3/1000 strokes : 11.0	cm3/1000 strokes : 3.5
Tolerance +	Check tolerance
cm3/1000 strokes : + 2.0	cm3/1000s. : 8.0
Check tolerance	
cm3/1000s. : +- 4.5	
Spreed +	
Tolerance	CONTROL LEVER
cm3/1000 strokes : 5.5	
Check tolerance	control lever
cm3/1000s. : 9.0	position degree : 60.0
1	tolerance degree : + 4.0
	total ance degree . 1 4.0
(B) SETTING OF INJECTION PUMP	control lever
WITH GOVERNOR +	position degree : 109.0
T T	tolerance degree : +- 4.0
GUIDE SLEEVE TRAVEL +	RATED SPEED
+	
Rated speed rpm : 300	rack travel mm : 10.60
guide sleeve	Rated speed rpm : 1360
travel mm : 1.05	Tolerance 1/min : +- 5
Tolerance mm : + 0.25	
Total arice may	rack travel mm : 4.00
Rated speed rpm : 1500	
guide steeve	Tolerance 1/min : + 15
travel mm : 8.55	
Tolerance mm : +- 0.05	rack travel mm : 0.50
+	Tolerance mm : +- 0.50
Rated speed rpm : 500 +	Rated speed rpm : 1650
guide sleeve +	
travel mm : 2.55	
Tolerance mm : + 0.25	
	LOW IDLE
Rated speed rpm : 750	
guide sleeve	
travel mm : 4.20	control lever
Tolerance mm : + 0.10 +	position degree : 68.0
†	tolerance degree : +- 4.0
GUIDE SLEEVE POSITION +	control lever
+	position degree : 19.0
Rated speed rpm : 1500 +	tolerance degree : +- 4.0
+	
Rack travel in mm: 16.50	Testing:
Tolerance mm : + 1.30 +	
	Rated speed rpm : 300
	rack travel mm : 7.00
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : + 0.10
FOLL LOAD DECEVERY AT FOLL LOAD STOP	Toterance iniii . Total
7-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	Dated around man . 400
Rated speed rpm : 1300	Rated speed rpm : 100
Aneroid pressure	
hPa : 900 +	CRT mm min. : > 8.00
Del. quantity	
cm3/1000 strokes : 106.0	Rated speed rpm : 375
Tolerance	
cm3/1000 strokes : +- 0.5	
Check tolerance	TORQUE CONTROL
cm3/1000s. : + 2.5	
V	

Rated speed rpm	: 1300	+ Aneroid pressure
rack travel mm		
		† hPa : -
Tolerance mm	: ← 0.05	Rated speed rpm : 500
	222	+ Del. quantity
Rated speed rpm	: 800	+ cm3/1000 strokes : 61.0
rack travel mm	: 11.65	+ Tolerance
Tolerance mm	: +- 0.05	+ cm3/1000 strokes : $+$ 1.0
		↑ Check tolerance
		+ cm3/1000s. : + 3.0
ANEROID/ALTITUDE	:	
COMPENSATOR TEST		
COMPENSATOR TEST		BREAKAWAY
		TOREANAWAI
A		†
SETTING		† - · · · · · · · · · · · · · · · · · ·
		Rack travel in mm: 10.60
Rated speed rpm		+ Rated speed rpm : 1360
Pressure hPa	: 900	+ Tolerance 1/min : +- 5
rack travel mm	: 11.65	}
Tolerance mm	: +- 0.05	1
, 500; a. 150 11kii		
MEASUREMENT		STARTING FUEL DELIVERY
MEMOUREMENT		T SIMPLING LOEF REFINENT
Daniel 10		Total amount on 100
Pressure hPa	: -	+ Rated speed rpm : 100
Rated speed rpm	: 500	+ rack travel mm : 12.90
		+ Tolerance mm : + 0.10
Rated speed rpm	: 500	+ Del. quantity
•		+ cm3/1000 strokes : 76.5
Pressure hPa	: 340	+ Tolerance
rack travel mm	0.40	+ cm3/1000 strokes : + 7.5
Tolerance mm		Check tolerance
TO CET OF ICE IIII	. 1- 0.10	m3/1000s. : +- 10.0
D	. F/D	† cm5/10005. : †= 10.0
Pressure hPa	: 560	†
rack travel mm	: 1.35	†
Tolerance mm	: ← 0.05	+
START CUT-OUT		+
		→ Del. quantity
Rated speed rpm	; > 100	+ cm3/1000 strokes : 11.0
Rated speed rpm	: < 220	+ Tolerance
nated opeca ipii		+ cm3/1000 strokes : + 2.0
Check		Check tolerance
	. > 00	+ cm3/1000s. : + 4.5
speed 1/min	: > 80	
Check	. 5.5	+ Spreed
speed 1/min	: < 240	+ Tolerance
		+ cm3/1000 strokes : 5.5
FUEL DELIVERY CHA	ARACTERISTICS	+ cm3/1000s. : 9.0
		
Aneroid pressure		1
hPa	: 900	1
Rated speed rpm	: 800	1
	. 000	
Del. quantity	. 05.5	
cm3/1000 strokes	: 95.5	F . 1 . 2 . 1 . 1 . 1 . 1 . 1 . 1 . 1 . 1 . 1 .
Tolerance		+ End of test specification sheet
cm3/1000 strokes	: 2.0	+
Check tolerance		+
cm3/1000s.	: +- 4.0	+
		1

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 10.04.96 Edition Test oil : ISO 4113

Combination No. : 9 400 085 373

Injection pump

Pump designation : PES6A95D41ORS2795

EP type number : 9 400 084 020

Governor

Governer design. : RSV350...1250A0C1169

Governer no. : 9 420 083 296

Cust. part No. :

Customer-spec. information Customer : MBB : OM 366 Motor Power KW : 94.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 bar Tolerance bar : + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 3.25 : + 0.05 Tolerance mm Check : +- 0.10 tolerance mm

Rack travel in mm: 10.50

Tolerance mm : + 1.50

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 8.65 Tolerance mm : \leftarrow 0.05

Del. quantity cm3/1000 strokes : 63.5

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance cm3/1000s. : ← 3.0

Spreed Tolerance

cm3/1000 strokes : 3.5

Check tolerance cm3/1000s.

8.0

Del. quantity	. 42.0
cm3/1000 strokes Tolerance	: 12.0
cm3/1000 strokes	: + 2.0
Check tolerance cm3/1000s.	: +- 4.5
Spreed	
Tolerance cm3/1000 strokes	: 5.5
Check tolerance cm3/1000s.	: 9.0
(110)	, 9,0
(B) SETTING OF IN WITH GOVERNOR	JECTION PUMP
GUIDE SLEEVE POSI	TION
Rated speed rpm	: 800
Rack travel in mm Tolerance mm	: 0.65 : + 0.35
governor spring pre-tension	
click setting x	: 5.00
FULL LOAD DELIVER	Y AT FULL LOAD STOP
Rated speed rpm	: 1250
Aneroid pressure	1 1650
hPa	-
Del augntity	
Del. quantity cm3/1000 strokes	: 63.5
cm3/1000 strokes Tolerance	
cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: + 1.0
cm3/1000 strokes Tolerance cm3/1000 strokes	
cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	: + 1.0 : + 3.0
cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes	: + 1.0
cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	: + 1.0 : + 3.0
cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance	: + 1.0 : + 3.0 : 3.5
cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance	: + 1.0 : + 3.0 : 3.5
cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. CONTROL LEVER control lever	: + 1.0 : + 3.0 : 3.5 : 8.0
cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. CONTROL LEVER control lever position degree	: + 1.0 : + 3.0 : 3.5
cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. CONTROL LEVER control lever position degree	: + 1.0 : + 3.0 : 3.5 : 8.0
cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. CONTROL LEVER control lever position degree tolerance degree	: + 1.0 : + 3.0 : 3.5 : 8.0

Tolerance 1/min	; +- 5
rack travel mm Rated speed rpm Tolerance 1/min	• 1347
rack travel mm Tolerance mm Rated speed rpm	: 0.85 : + 0.55 : 1500
LOW IDLE	
control lever position degree tolerance degree	: 82.0 : + 4.0
Setting point w/o	out bumper spring
Rated speed rpm rack travel mm	: 350 : 6.50
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 350 : 7.00 : ← 0.10
rack travel mm Rated speed rpm Tolerance 1/min	: 2.00 : 475 : +- 30
Rated speed rpm	: 100
CRT mm min.	: > 19.00
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 1250 : 8.65 : +- 0.05
Rated speed rpm rack travel mm Tolerance mm	: 500 : 8.70 : +- 0.10
Rated speed rpm rack travel mm Tolerance mm	: 400 : 10.10 : ← 0.30

BREAKAWAY

Rack travel in mm : 7.60
Rated speed rpm : 1295
Tolerance 1/min : +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 14.20 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 101.5 Tolerance cm3/1000 strokes : + 7.5 Check tolerance cm3/1000s. : + 10.0

LOW IDLE

Del. quantity
cm3/1000 strokes : 12.0
Tolerance
cm3/1000 strokes : + 2.0
Check tolerance
cm3/1000s. : + 4.5
Spreed
Tolerance
cm3/1000 strokes : 5.5
Check tolerance
cm3/1000s. : 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 10.04.96 : ISO 4113 Test oil

Combination No. : 9 400 085 374

Injection pump

Pump designation : PES6A95D410RS2772 EP type number : 9 400 084 018

Governor

Governer design. : RSV350...1250A0c1170

: 9 420 083 297 Governer no.

Cust. part No. :

Customer-spec. information Customer : MBB : OM 366 A Motor Power KW : 121.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

: 173.5 : + 1.5 Tolerance bar

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm : 3.25
Tolerance mm : + 0.05 Check tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 9.65 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 82.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 3.0

Spreed Tolerance

cm3/1000 strokes :

3.5

Check tolerance cm3/1000s. :

8.0

Del. quantity cm3/1000 strokes : 15.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 5.5 Check tolerance cm3/1000s. : 9.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR
GUIDE SLEEVE POSITION
Rated speed rpm : 800
Rack travel in mm : 0.65 Tolerance mm : + 0.35
governor spring pre-tension click setting x : 3.25
FULL LOAD DELIVERY AT FULL LOAD STOP
Rated speed rpm : 1250 Aneroid pressure hPa : -
Del. quantity cm3/1000 strokes : 82.0
Tolerance cm3/1000 strokes : + 1.0
Check tolerance cm3/1000s. : + 3.0
Spreed Tolerance
Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance
Spreed Toterance cm3/1000 strokes : 3.5
Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance
Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 8.0
Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000S. : 8.0 CONTROL LEVER control lever position degree : 103.0

Tolerance 1/min	: +- 5
rack travel mm	: 4.00
Rated speed rpm	: 1340
Tolerance 1/min	: + 15
rack travel mm	: 1.00
Tolerance mm	: +- 0.70
Rated speed rpm	: 1500
FOM IDFE	ar 177 kausta Philosophik kiniste kiirokar suhkin paarkan akirokir karaketan kuulkaasa suu maa
control lever position degree tolerance degree	
Setting point w/o	ut bumper spring
Rated speed rpm	: 350
rack travel mm	: 6.30
Testing:	
Rated speed rpm	: 350
rack travel mm	: 6.80
Tolerance mm	: + 0.10
rack travel mm	: 2.00
Rated speed rpm	: 450
Tolerance 1/min	: + 30
Rated speed rpm	: 100
CRT mm min.	: > 19.00
TORQUE CONTROL	
Rated speed rpm	: 1250
rack travel mm	: 9.65
Tolerance mm	: +- 0.05
Rated speed rpm	: 800
rack travel mm	: 9.65
Tolerance mm	: + 0.05
Rated speed rpm	: 500
rack travel mm	: 9.70
Tolerance mm	: +- 0.10
Rated speed rpm	: 400
rack travel mm	: 11.10
Tolerance mm	: + 0.30

FUEL DELIVERY CHARACTERISTICS Aneroid pressure 008 Rated speed rpm Del. quantity cm3/1000 strokes : 74.0 Tolerance cm3/1000 strokes : +- 2.0 Check tolerance cm3/1000S. 4.0 BREAKAWAY 8.60 Rack travel in mm : Rated speed rpm : 1295 Tolerance 1/min : +-STARTING FUEL DELIVERY Rated speed rpm 100 14.00 rack travel mm : + 0.10Tolerance mm Del. quantity cm3/1000 strokes : 105.0 Tolerance cm3/1000 strokes : +- 10.0 Check tolerance : + 13.0 cm3/1000s. LOW IDLE Del. quantity cm3/1000 strokes : 15.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 5.0 Spreed Tolerance cm3/1000 strokes : 5.5 Check tolerance 9.0 cm3/1000S.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 10.04.96 Test oil : ISO 4113

Combination No. : 9 400 085 375

Injection pump

Pump designation : PES6A95D410RS2812 EP type number : 9 400 084 028

Governor

Governer design. : RSV350...1250A8C808L

Governer no. : 9 420 083 298

Cust. part No. : 9.0520.05.6.9506

Customer-spec. information

Customer : MWM

: 6.10 TCA Motor

Power KW : 158.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 bar : +- 1.5 Tolerance bar

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.80 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

: 0-60-120-180-240 Phasing

: -300

Beginning of delivery differende

and maximum rack

: 10.50 travel travel : 10.50
Tolerance mm : + 1.50
Difference ° CS : 2.00

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm: 13.35 Tolerance mm: $\leftarrow 0.05$

Del. quantity

cm3/1000 strokes : 119.5

Tolerance cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 3.0

	+		
Spreed	The state of the s	control lever	
Tolerance cm3/1000 strokes :	3.5	position degree tolerance degree	: 107.0 : +- 4.0
Check tolerance		RATED SPEED	
cm3/1000s. :	8.0	rack travel mm	: 12.30
Del. quantity cm3/1000 strokes : Tolerance	20.5	Rated speed rpm	: 1305 : +- 5
cm3/1000 strokes :	+ 2.0	rack travel mm	4.00
Check tolerance cm3/1000s. : Spreed	+ 4.5	Rated speed rpm Tolerance 1/min	: 1360 : + 15
Tolerance cm3/1000 strokes :	5.5	rack travel mm Tolerance mm	: 0.85 : +- 0.55
Check tolerance cm3/1000s. :	9.0	Rated speed rpm	: 1500
	<u> </u>		
(B) SETTING OF INJECTION OF INJ	CTION PUMP	LOW IDLE	
		control lever	: 65.0
GUIDE SLEEVE POSITIO	on ‡	position degree tolerænce degree	
Rated speed rpm :	800	Setting point w/ou	t bumper spring
Rack travel in mm : Tolerance mm :			350 6.00
governor spring pre-tension	Ī	Testing:	
click setting x :	4.00	rack travel mm	: 350 : 6.50 : ← 0.10
FULL LOAD DELIVERY A	AT FULL LOAD STOP		
Rated speed rpm :	1250	Rated speed rpm	: 2.00 : 435
Aneroid pressure hPa :	- ‡	Tolerance 1/min	: +- 30
Del. quantity cm3/1000 strokes :	119.5	Rated speed rpm	: 100
Tolerance	+ 1.0	CRT mm min.	: > 19.00
Check tolerance	+- 3.0	TORQUE CONTROL	
cm3/1000s. : Spreed	7- 3.0		1250
Tolerance cm3/1000 strokes :	3.5	rack travel mm	1250 13.35
Check tolerance cm3/1000s. :	8.0		+- 0.05
	+		600 13.35
CONTROL LEVER	+		+- 0.05
	‡	Rated speed rpm : rack travel mm :	400 14.80

Tolerance mm : +- 0.30

BREAKAWAY

Rack travel in mm : 12.30
Rated speed rpm : 1305
Tolerance 1/min : + 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : + 1.00 Del. quantity cm3/1000 strokes : 156.0 Tolerance cm3/1000 strokes : + 8.0 Check tolerance cm3/1000s. : + 11.0

LOW IDLE

Del. quantity cm3/1000 strokes : 20.5 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 5.5 Check tolerance cm3/1000s. : 9.0

BOSCH INJ. PUMP TEST SPECIFICATIONS Note remarks Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 10.04.96 Edition Test oil : ISO 4113

Combination No. : 9 400 085 376

Injection pump

Pump designation : PES4A95D320RS2807 EP type number : 0 410 894 994

Governor

Governer design. : RSV375...1150A2C2282

: 9 420 083 302 Governer no.

Cust. part No.

Customer-spec. information Customer : VALMET Motor : 420 DS Power KW : 77.2

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

40 temp. °C Tolerance °C

: 1 419 992 198 Overflow valve

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 bar : +- 1.5 Tolerance bar

: 1 680 750 014 Test lines

Outside diameter : 6.0 x inside diameter: 2.0 x length mm 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar

Prestroke mm 2.40 Tolerance mm : + - 0.05

Check

: + 0.10tolerance mm

Rack travel in mm: 10.50 Tolerance mm : + 1.50

: 1-2-4-3 Firing order

Phasing : 0-90-180-270

Beginning of delivery differende

and maximum rack

10.50 travel : +- 1.50 Tolerance mm Difference ° CS 5.00

BASIC SETTING

Rated speed rpm 1150

12,25 Rack travel in mm : Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 101.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 3.0

Spreed

K₀2

Tolerance	†
cm3/1000 strokes : 3.5	+ control lever
	position degree : 101.0
Check tolerance	tolerance degree : +- 4.0
cm3/1000s. : 8.0	†
	RATED SPEED
Del. quantity	†
cm3/1000 strokes : 20.0	rack travel mm : 11.20
Tolerance	Rated speed rpm : 1195
cm3/1000 strokes : + 2.0	Tolerance 1/min : +- 5
Check tolerance .	†
cm3/1000s. : + 4.5	rack travel mm : 4.00
Spreed	Rated speed rpm : 1290
Tolerance	Tolerance 1/min : +- 15
cm3/1000 strokes : 5.5	
Check tolerance	rack travel mm : 0.85
cm3/1000s. : 9.0	Tolerance mm : + 0.55
•	Rated speed rpm : 1400
(n) office of thireston pump	†
(B) SETTING OF INJECTION PUMP	
WITH GOVERNOR -	LOW TOLE
•	LOW IDLE
	Ī
GUIDE SLEEVE POSITION	control lever
GOIDE SEEENE COSTITOIA	position degree : 75.0
Rated speed rpm : 800	tolerance degree : +- 4.0
rated speed (pill : ooo -	toterance degree 4.0
Rack travel in mm : 0.65	control lever
Tolerance mm : + 0.35	position degree : 25.0
	tolerance degree : + 4.0
governor spring -	1
pre-tension	Setting point w/out bumper spring
click setting x : 5.00 -	L south of parties we also be might
	Rated speed rpm : 375
	rack travel mm : 5.10
FULL LOAD DELIVERY AT FULL LOAD STOP	
-	Testing:
Rated speed rpm : 1150	
Aneroid pressure	Rated speed rpm : 375
hPa : -	rack travel mm : 5.60
Del. quantity	Tolerance mm : + 0.10
cm3/1000 strokes : 101.0	+
Tolerance	rack travel mm : 2.00
cm3/1000 strokes : +- 1.0	Rated speed rpm : 495
Check tolerance	Tolerance 1/min : +- 30
cm3/1000s. : +- 3.0	†
Spreed	Rated speed rpm : 100
Tolerance	·
cm3/1000 strokes : 3.5	CRT mm min. : > 19.50
Check tolerance	t
cm3/1000s. : 8.0	TOROUG ANITOC:
	TORQUE CONTROL
1	Poted eneed 4450
ADDROG LEVED	Rated speed rpm : 1150
CONTROL LEVER -	rack travel mm : 12.25
tual Javan	Tolerance mm : +- 0.05
control lever	Poted speed war a FOO
position degree : 51.0	- Rated speed rpm : 500
tolerance degree : +- 4.0 +	rack travel mm : 12.75

: +- 0.05 Tolerance mm Rated speed rpm : 700 rack travel mm : 12.75 : +- 0.05 Tolerance mm 950 12.45 Rated speed rpm : rack travel mm : : +- 0.05 Tolerance mm FUEL DELIVERY CHARACTERISTICS Aneroid pressure Rated speed rpm : 700 Del. quantity cm3/1000 strokes : 101.0 Tolerance cm3/1000 strokes : +- 2.0 Check tolerance cm3/1000s. BREAKAWAY Rack travel in mm: 11.20 Rated speed rpm : 1195 Tolerance 1/min : + 5 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.00 : +- 1.00 Tolerance mm Del. quantity cm3/1000 strokes : 202.0 Tolerance cm3/1000 strokes : + 8.0Check tolerance cm3/1000s. : + 11.0 LOW IDLE

Tolerance cm3/1000 strokes : 5.5 Check tolerance cm3/1000s. : 9.0

End of test specification sheet

Check tolerance cm3/1000s.

Spreed

Del. quantity

Tolerance

cm3/1000 strokes : 20.0

cm3/1000 strokes : \leftarrow 2.0

: +- 4.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 10.04.96 Edition : ISO 4113 Test oil

: 9 400 085 378 Combination No.

Injection pump

Pump designation : PES6A100D320/3RS2827

EP type number : 9 400 084 030

Governor

Governer design. : RSV400...900A7C2209

: -4R

: 9 420 083 301 Governer no.

Cust. part No. : 3355291

Customer-spec. information Customer : CUMMINS : 6 CTA 240 Motor : 180.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

40 temp. °C Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 : +- 1.5 Tolerance bar

Test lines : 1 680 750 014

Outside diameter : 6.0 x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: Tolerance bar : +- 1.0

Prestroke mm : 2.65 : +- 0.05 Tolerance mm

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

Beginning of delivery differende

and maximum rack

10.50 travel Tolerance mm : **←** 1.50 Difference * CS : 4.00

BASIC SETTING

Rated speed rpm : 880

Rack travel in mm: 13.25 : +- 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 159.5

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. : +-3.0

			1			
Spreed			1	control lever		
Tolerance			1	position degree	:	107.0
cm3/1000 strokes	:	3.5	+	tolerance degree		
	-		+	_		
Check tolerance			ŧ			
cm3/1000s.	:	8.0	†	ASSEMBLY GOVERNOR	SETT	ING
Del. quantity			Ī	Rated speed rpm	•	923
cm3/1000 strokes	:	11.0	I	rack travel mm	:	12.20
Tolerance	•	,,,,	1	TOOK CTOVEC IMI	•	12.20
cm3/1000 strokes	: +	2.0	+	Rated speed rpm	:	963
Check tolerance			+	Tolerance 1/min	: +-	4
cm3/1000s.	: +-	4.5	+	rack travel mm	:	4.00
Spreed			+			
Tolerance		~ r	+	rack travel mm	:	0.85
cm3/1000 strokes	:	5.5	†	Tolerance mm	: +-	0.55
Check tolerance cm3/1000s.	•	9.0	Ť	Rated speed rpm	•	1100
	:	7.0	I	Rated speed rpm	:	924
			I	rack travel mm	•	12.20
(B) SETTING OF IN	JECTION	PUMP	1	, and that ce that	•	
WITH GOVERNOR			+	Rated speed rpm	:	964
			+	Tolerance 1/min	: +	4
			+	rack travel mm	:	4.00
		·····	+			0.05
GUIDE SLEEVE POSI	LTOM		†	rack travel mm	:	0.85
Dated aroad arm	. 0	00	†	Tolerance mm Rated speed rpm	: +-	0.55 1100
Rated speed rpm	: 8	00	I	rated speed thii	•	1100
Rack travel in mm	:	0.65	1	Rated speed rpm	:	925
Tolerance mm		0.35	1	rack travel mm	:	12.20
			+			
governor spring			+	Rated speed rpm	:	965
pre-tension		c 70	+	Tolerance 1/min	: +-	4
click setting x	:	5.30	†	rack travel mm	:	4.00
			I	rack travel mm	•	0.85
FULL LOAD DELIVERY	Y AT FU	II LOAD STOP	Ţ	Tolerance mm	: +-	0.55
TOLL COMP VELLVEN	, ,,, , ,	EE 20/19 0101	1	Rated speed rpm		1100
Rated speed rpm	: 8	80	+		•	
Aneroid pressure			+	Rated speed rpm	:	926
hPa	:	-	+	rack travel mm	:	12.20
Del. quantity		F0 5	+			044
cm3/1000 strokes	: 1:	59.5	†	Rated speed rpm	:	966
Tolerance cm3/1000 strokes	•	1.0	Ī	Tolerance 1/min rack travel mm	:	4 4.00
Check tolerance	•	1.0	I	Tack Clavet Hall	•	4.00
cm3/1000s.	: +-	3.0	1	rack travel mm	:	0.85
Spreed	•		+	Tolerance mm	: +-	0.55
Tolerance			+	Rated speed rpm	:	1100
cm3/1000 strokes	:	3.5	+			
Check tolerance			+	Rated speed rpm	:	927
cm3/1000s.	:	8.0	†	rack travel mm	:	12.20
			Ī	Pated speed nom		967
			I	Rated speed rpm Tolerance 1/min	: +-	901 4
CONTROL LEVER			I	rack travel mm	:	4.00
SOFTINGE LEVELY			1	- weis elected inte	•	
			+	rack travel mm	:	0.85

Tolerance mm	: ← 0.55
Rated speed rpm	: 1100
Rated speed rpm	: 928
rack travel mm	: 12.20
Rated speed rpm	: 968
Tolerance 1/min	: +- 4
rack travel mm	: 4.00
rack travel mm	: 0.85
Tolerance mm	: +- 0.55
Rated speed rpm	: 1100

LOW IDLE

control lever position degree : 77.0 tolerance degree : +- 4.0

Setting point w/out bumper spring

Rated speed rpm : 400 rack travel mm : 3.50

Testing:

Rated speed rpm : 400 rack travel mm : 4.00 Tolerance mm : + 0.10

rack travel mm : 2.00
Rated speed rpm : 435
Tolerance 1/min : +- 30

Rated speed rpm : 100

CRT mm min. : > 19.00

TORQUE CONTROL

Rated speed rpm : 880 rack travel mm : 13.25 Tolerance mm : + 0.05

Rated speed rpm : 500 rack travel mm : 13.30 Tolerance mm : + 0.10

Rated speed rpm : 350 rack travel mm : 14.40 Tolerance mm : + 0.30

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 20.00
Tolerance mm : + 1.00
Del. quantity
cm3/1000 strokes : 166.0
Tolerance
cm3/1000 strokes : + 8.0
Check tolerance
cm3/1000s. : + 11.0

LOW IDLE

Del. quantity cm3/1000 strokes : 11.0 Tolerance 2.0 cm3/1000 strokes : +-Check tolerance cm3/1000s. 4.5 Spreed Tolerance cm3/1000 strokes : 5.5 Check tolerance cm3/1000s. 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 10.04.96 Test oil : ISO 4113

Combination No. : 9 400 085 378EE

Injection pump

Pump designation : PES6A100D320/3RS2827

EP type number : 9 400 084 030

Governor

Governer design. : RSV400...900A7C2209

: -4R

Governer no. : 9 420 083 301

Cust. part No. : 3355523-VERSA0-44

Customer-spec. information Customer : CUMMINS Motor : 6 CTA 240 Power KW : 155.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.65
Tolerance mm : + 0.05
Check
tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : + 1.50
Difference ° CS : 4.00

BASIC SETTING

Rated speed rpm : 720

Rack travel in mm : 13.25 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 165.0

Tolerance cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 3.0

		.1.		
Spreed		· I	control lever	
Tolerance		1	position degree	: 97.0
cm3/1000 strokes	: 3.5	+	tolerance degree	
		+	3	
Check tolerance		, †		
cm3/1000s.	: 8.0	+	ASSEMBLY GOVERNOR	SETTING
		+		
Del. quantity		+	Rated speed rpm	: 756
cm3/1000 strokes	: 11.0	+	rack travel mm	: 12.20
Tolerance		+		
cm3/1000 strokes	: 2.0	+	Rated speed rpm	: 803
Check tolerance		+	Tolerance 1/min	: +- 4
cm3/1000s.	: +- 4.5	+	rack travel mm	: 4.00
Spreed		+		0.00
Tolerance		†	rack travel mm	: 0.85
cm3/1000 strokes	: 5.5	†	Tolerance mm	: +- 0.55
Check tolerance	. 0.0	†	Rated speed rpm	: 900
cm3/1000s.	: 9.0	Ť	Dated aread nom	: 757
		Ť	Rated speed rpm rack travel mm	: 757 : 12.20
(B) SETTING OF IN	LIECTION DUMP	T	rack travet mm	: 12.20
WITH GOVERNOR	RECTION FOMP	I	Rated speed rpm	: 804
MTIH GOVERNOR		I	Tolerance 1/min	: +- 4
		I	rack travel mm	4.00
	· · · · · · · · · · · · · · · · · · ·	I	I GCK CI GVC C IMII	. 4.00
GUIDE SLEEVE POSI	TION	1	rack travel mm	: 0.85
	. 1 2 0 1 7	1	Tolerance mm	: + 0.55
Rated speed rpm	: 800	1	Rated speed rpm	900
The second of th	. 333	+	THE STATE OF THE S	
Rack travel in mm	: 0.65	+	Rated speed rpm	: 758
Tolerance mm	: ← 0.35	+	rack travel mm	: 12.20
		+		
governor spring		+	Rated speed rpm	: 805
pre-tension 🤚		+	Tolerance 1/min	: +- 4
click setting x	: 5.30	+	rack travel mm	: 4.00
		+	4	
		†	rack travel mm	: 0.85
FULL LOAD DELIVER	Y AT FULL LOAD STOP	†	Tolerance mm	: +- 0.55
5	. 720	†	Rated speed rpm	: 900
Rated speed rpm	: 720	†	Dated aread sur	: 759
Aneroid pressure	• –	T	Rated speed rpm rack travel mm	: 12.20
hPa Del. quantity	•	Ι	rack travet min	12.20
cm3/1000 strokes	: 165.0	I	Rated speed rpm	: 806
Tolerance	. ,05.0	1	Tolerance 1/min	: +- 4
cm3/1000 strokes	: +- 1.0	1	rack travel mm	4.00
Check tolerance	• • • • • • • • • • • • • • • • • • • •	1		. ,,,,,
cm3/1000s.	: +- 3.0	1	rack travel mm	: 0.85
Spreed		1	Tolerance mm	: +- 0.55
Tolerance		+	Rated speed rpm	: 900
cm3/1000 strokes	: 3.5	+	, ,	
Check tolerance		+	Rated speed rpm	: 760
cm3/1000s.	: 8.0	+	rack travel mm	: 12.20
		+		
		+	Rated speed rpm	: 807
		+	Tolerance 1/min	: +- 4
CONTROL LEVER		t	rack travel mm	: 4.00
		+	8	
		+	rack travel mm	: 0.85

: +- 0.55 Tolerance mm Rated speed rpm 900 761 Rated speed rpm : rack travel mm 12.20 Rated speed rpm 808 Tolerance 1/min 4 4.00 rack travel mm rack travel mm 0.85 0.55 Tolerance mm 900 Rated speed rpm

LOW IDLE

control lever position degree : 77.0 tolerance degree : +- 4.0

Setting point w/out bumper spring

Rated speed rpm : 400 rack travel mm : 3.50

Testing:

Rated speed rpm : 400 rack travel mm : 4.00 Tolerance mm : + 0.10

rack travel mm : 2.00
Rated speed rpm : 425
Tolerance 1/min : +- 30

Rated speed rpm : 100

CRT mm min. : > 19.00

TORQUE CONTROL

Rated speed rpm : 720 rack travel mm : 13.25 Tolerance mm : + 0.05

Rated speed rpm : 550 rack travel mm : 13.30 Tolerance mm : + 0.10

Rated speed rpm : 410 rack travel mm : 14.70 Tolerance mm : + 0.30

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : + 1.00 Del. quantity cm3/1000 strokes : 166.0 Tolerance cm3/1000 strokes : + 8.0 Check tolerance cm3/1000s. : + 11.0

LOW IDLE

Del. quantity cm3/1000 strokes : 11.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance cm3/1000 strokes : 5.5 Check tolerance cm3/1000s. 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 08.04.96 Test oil : ISO 4113

Combination No. : 9 400 085 379

Injection pump

Pump designation : PES6A95D410RS2772 EP type number : 9 400 084 018

Governor

Governer design. : RQV300...1300AB1277L

Governer no. : 9 420 080 355

Cust. part No. :

Customer-spec. information Customer : MBB

Motor : 0M 366 A Power KW : 125.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40 Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.25
Tolerance mm : +- 0.05
Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 10.55 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 91.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. : +- 3.0

Spreed Tolerance

cm3/1000 strokes :

3.5

Check tolerance cm3/1000s.

: 8.0

	Company
Dol guphitu	Spreed Tolerance
Del. quantity + cm3/1000 strokes : 11.0 +	cm3/1000 strokes : 3.5
Tolerance	Check tolerance
cm3/1000 strokes : +- 2.0	cm3/1000s. : 8.0
Check tolerance	CIID/ (0005 0.0
cm3/1000s. : +- 4.5	
Spreed	
Tolerance	CONTROL LEVER
cm3/1000 strokes : 5.5	CONTINUE EEVEN
Check tolerance	control lever
cm3/1000s. : 9.0	position degree : 108.0
	tolerance degree : +- 4.0
1	3000 4110 403.00
(B) SETTING OF INJECTION PUMP	RATED SPEED
WITH GOVERNOR +	
+	rack travel mm : 9.50
	Rated speed rpm : 1350
GUIDE SLEEVE TRAVEL	Tolerance 1/min : +- 5
+	
Rated speed rpm : 300	rack travel mm : 4.00
guide sleeve	Rated speed rpm : 1475
travel mm : 1.05	Tolerance 1/min : + 15
Tolerance mm : + 0.25	
+	rack travel mm : 0.50
Rated speed rpm : 1500	Tolerance mm : + 0.50
guide sleeve	Rated speed rpm : 1650
travel mm : 8.55	
Tolerance mm : + 0.05	
Rated speed rpm : 500	LOW IDLE
guide sleeve	
travel mm : 2.55	
Tolerance mm : + 0.25	control lever
+	position degree : 68.0
Rated speed rpm : 750	tolerance degree : +- 4.0
guide sleeve	
travel mm : 4.20	Testing:
Tolerance mm : + 0.10 +	
	Rated speed rpm : 300
	rack travel mm : 7.00
GUIDE SLEEVE POSITION +	rack travel mm : 7.00 Tolerance mm : +- 0.10
GUIDE SLEEVE POSITION	
+	
Rated speed rpm : 1500	Tolerance mm : +- 0.10 Rated speed rpm : 100
+	Tolerance mm : +- 0.10
Rated speed rpm : 1500	Tolerance mm : +- 0.10 Rated speed rpm : 100
Rated speed rpm : 1500 Rack travel in mm : 16.50	Tolerance mm : +- 0.10 Rated speed rpm : 100
Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30	Tolerance mm : +- 0.10 Rated speed rpm : 100 CRT mm min. : > 8.00
Rated speed rpm : 1500 Rack travel in mm : 16.50	Tolerance mm : +- 0.10 Rated speed rpm : 100 CRT mm min. : > 8.00
Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : +- 0.10 Rated speed rpm : 100 CRT mm min. : > 8.00
Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300	Tolerance mm : +- 0.10 Rated speed rpm : 100 CRT mm min. :> 8.00 Rated speed rpm : 325 TORQUE CONTROL
Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure	Tolerance mm : +- 0.10 Rated speed rpm : 100 CRT mm min. :> 8.00 Rated speed rpm : 325 TORQUE CONTROL Rated speed rpm : 1300
Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 800	Tolerance mm : +- 0.10 Rated speed rpm : 100 CRT mm min. :> 8.00 Rated speed rpm : 325 TORQUE CONTROL Rated speed rpm : 1300 rack travel mm : 10.55
Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 800 Del. quantity	Tolerance mm : +- 0.10 Rated speed rpm : 100 CRT mm min. :> 8.00 Rated speed rpm : 325 TORQUE CONTROL Rated speed rpm : 1300
Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 800	Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 8.00 Rated speed rpm : 325 TORQUE CONTROL Rated speed rpm : 1300 rack travel mm : 10.55 Tolerance mm : + 0.05
Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 91.0 Tolerance	Tolerance mm : +- 0.10 Rated speed rpm : 100 CRT mm min. :> 8.00 Rated speed rpm : 325 TORQUE CONTROL Rated speed rpm : 1300 rack travel mm : 10.55 Tolerance mm : +- 0.05 Rated speed rpm : 800
Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 91.0	Tolerance mm : +- 0.10 Rated speed rpm : 100 CRT mm min. :> 8.00 Rated speed rpm : 325 TORQUE CONTROL Rated speed rpm : 1300 rack travel mm : 10.55 Tolerance mm : +- 0.05 Rated speed rpm : 800
Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 91.0 Tolerance	Tolerance mm : +- 0.10 Rated speed rpm : 100 CRT mm min. :> 8.00 Rated speed rpm : 325 TORQUE CONTROL Rated speed rpm : 1300 rack travel mm : 10.55 Tolerance mm : +- 0.05 Rated speed rpm : 800
Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 91.0 Tolerance cm3/1000 strokes : + 1.0	Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 8.00 Rated speed rpm : 325 TORQUE CONTROL Rated speed rpm : 1300 rack travel mm : 10.55 Tolerance mm : + 0.05 Rated speed rpm : 800 rack travel mm : 11.25

Rated speed rpm rack travel mm Tolerance mm ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 11.00 : + 0.10 : 500 : 800 : 11.45	Tolerance cm3/1000 strokes : +- 2.0 Check tolerance cm3/1000s. : +- 4.0 Aneroid pressure hPa : Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 62.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 3.0
MEASUREMENT	. ‡	BREAKAWAY
Pressure hPa Rated speed rpm Rated speed rpm Pressure hPa	: 500 : 500 : 500	Rack travel in mm: 9.50 Rated speed rpm: 1350 Tolerance 1/min: + 5
rack travel mm Tolerance mm	: 1.20 : + 0.10	STARTING FUEL DELIVERY
Pressure hPa rack travel mm Tolerance mm	: 310 : 0.45 : + 0.05	Rated speed rpm : 100 rack travel mm : 13.30 Tolerance mm : + 0.10 Del. quantity
START CUT-OUT	1	cm3/1000 strokes : 82.5 Tolerance cm3/1000 strokes : +- 7.5
Rated speed rpm Rated speed rpm		Check tolerance cm3/1000s. : + 10.0
Check speed 1/min Check	:> 80	
speed 1/min	: < 240	LOW IDLE
FUEL DELIVERY CHA	ARACTERISTICS	Del. quantity cm3/1000 strokes : 11.0 Tolerance
Aneroid pressure hPa Rated speed rpm Del. quantity	: 800 : 800	cm3/1000 strokes : +- 2.0 Check tolerance cm3/1000S. : +- 4.5 Spreed
cm3/1000 strokes Tolerance	+	Tolerance cm3/1000 strokes : 5.5
cm3/1000 strokes Check tolerance cm3/1000s.	: + 2.0 : + 4.0	Check tolerance cm3/1000s. : 9.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes	: 800 : 1000 : 91.5	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 10.04.96 Test oil : ISO 4113

Combination No. : 9 400 085 380

Injection pump

Pump designation : PES6A95D12ORS2834 EP type number : 9 400 084 032

Governor

Governer design. : RSV400...1250A8C2284

R

Governer no. : 9 420 083 303

Cust. part No. : 3356006

Customer—spec. information
Customer : CUMMINS
Motor : 6BT
Power KW : 112.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.80
Tolerance mm : + 0.05
Check
tolerance mm : + 0.10

Rack travel in mm : 10.50
Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : + 1.50
Difference ° CS : 2.50

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 11.65
Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes :

3/1000 strokes : 93.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. : +- 3.0

	1
Spreed Tolerance	control lever position degree : 111.0
cm3/1000 strokes : 3.5	tolerance degree : +- 4.0
Check tolerance cm3/1000s. : 8.0	RATED SPEED
- A	rack travel mm : 10.60
Del. quantity cm3/1000 strokes : 11.0	Rated speed rpm : 1300 Tolerance 1/min : + 5
Tolerance cm3/1000 strokes : +- 2.0	rack travel mm : 4.00
Check tolerance cm3/1000s. : +- 4.5	Rated speed rpm : 1355 Tolerance 1/min : +- 15
Spreed Tolerance	rack travel mm : 0.85
cm3/1000 strokes : 5.5 Check tolerance	Tolerance mm : + 0.55 Rated speed rpm : 1450
cm3/1000s. : 9.0	+ Tracea speed rpm
	+
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	LOW IDLE
, <u>, , , , , , , , , , , , , , , , , , </u>	+
	+ control lever + position degree : 72.0
GUIDE SLEEVE POSITION	tolerance degree : + 4.0
Rated speed rpm : 800	Setting point w/out bumper spring
Rack travel in mm: 0.65	+ Rated speed rpm : 400
Tolerance mm : + 0.35	rack travel mm : 4.50
governor spring pre-tension	Testing:
click setting x : 5.00	Rated speed rpm : 400
•	+ rack travel mm : 5.00
FULL LOAD DELIVERY AT FULL LOAD STOP	† Tolerance mm : + 0.10
FOLE LOAD DELIVERY AT FOLE LOAD STOP	Frack travel mm : 2.00
Rated speed rpm : 1250	+ Rated speed rpm : 505
Aneroid pressure	† Tolerance 1/min : + 30
hPa : -	+
Dol quantity	Pated speed rpm · 100
Del. quantity cm3/1000 strokes : 93.0	Rated speed rpm : 100
cm3/1000 strokes : 93.0 Tolerance	Rated speed rpm : 100 CRT mm min. : > 19.00
cm3/1000 strokes : 93.0 Tolerance cm3/1000 strokes : +- 1.0	+
cm3/1000 strokes : 93.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance	CRT mm min. : > 19.00
cm3/1000 strokes : 93.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 3.0 Spreed	CRT mm min. : > 19.00 TORQUE CONTROL
cm3/1000 strokes : 93.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 3.0 Spreed Tolerance	CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1250
cm3/1000 strokes : 93.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 3.0 Spreed	CRT mm min. : > 19.00 TORQUE CONTROL
<pre>cm3/1000 strokes : 93.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 3.0 Spreed Tolerance cm3/1000 strokes : 3.5</pre>	CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1250 rack travel mm : 11.65 Tolerance mm : + 0.05
cm3/1000 strokes : 93.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance	CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1250 rack travel mm : 11.65 Tolerance mm : + 0.05 Rated speed rpm : 500
cm3/1000 strokes : 93.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance	CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1250 rack travel mm : 11.65 Tolerance mm : + 0.05 Rated speed rpm : 500 rack travel mm : 11.70
<pre>cm3/1000 strokes : 93.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 8.0</pre>	CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1250 rack travel mm : 11.65 Tolerance mm : + 0.05 Rated speed rpm : 500
cm3/1000 strokes : 93.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance	CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1250 rack travel mm : 11.65 Tolerance mm : + 0.05 Rated speed rpm : 500 rack travel mm : 11.70

Tolerance mm : +- 0.05 Rated speed rpm 400 12,40 rack travel mm : **←** 0.30 Tolerance mm FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa 750 Rated speed rpm Del. quantity cm3/1000 strokes : 92.0 Tolerance cm3/1000 strokes 2.0 Check tolerance cm3/1000s. 4.0 **BREAKAWAY** Rack travel in mm: 10.60 Rated speed rpm : 1300 Tolerance 1/min STARTING FUEL DELIVERY Rated speed rpm 100 rack travel mm 20.00 : : +- 1.00 Tolerance mm Del. quantity cm3/1000 strokes : 125.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : +- 13.0 LOW IDLE Del. quantity cm3/1000 strokes : 11.0 Tolerance cm3/1000 strokes 2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance 5.5 cm3/1000 strokes

9.0

End of test specification sheet

Check tolerance cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 10.04.96 Test oil : ISO 4113

Combination No. : 9 400 085 380FB

Injection pump

Pump designation : PES6A95D12ORS2834 EP type number : 9 400 084 032

Governor

Governer design. : RSV400...1250A8C2284

: R

Governer no. : 9 420 083 303

Cust. part No. : 3356187-VERSA051

Customer-spec. information
Customer : CUMMINS
Motor : 6BT
Power KW : 100.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : +- 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.80 Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : + 1.50
Difference CS : 2.50

BASIC SETTING

Rated speed rpm : 1150

Rack travel in mm : 10.75 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 83.0

Tolerance cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : + 3.0

Spreed Tolerance cm3/1000 strokes : 3. Check tolerance cm3/1000s. : 8. Del. quantity cm3/1000 strokes : 11. Tolerance cm3/1000 strokes : + 2. Check tolerance	.0	control lever position degree : tolerance degree : + control lever position degree : tolerance degree : +	- 4.0 105.0
cm3/1000s. : 8. Del. quantity cm3/1000 strokes : 11. Tolerance cm3/1000 strokes : +- 2. Check tolerance	+	position degree :	
cm3/1000 strokes : 11. Tolerance cm3/1000 strokes : + 2. Check tolerance	1		4.U
cm3/1000 strokes : +- 2. Check tolerance		RATED SPEED	
	.0 ‡	rack travel mm :	
cm3/1000s. : +- 4. Spreed	.5	Rated speed rpm : Tolerance 1/min : +	1195 5
Tolerance cm3/1000 strokes : 5.	.5	rack travel mm : Rated speed rpm :	4.00 1245
Check tolerance cm3/1000s. 9.	+		- 15
(B) SETTING OF INJECTION PU	‡		0.85 - 0.55 1350
WITH GOVERNOR	T	rated speed ipili .	1000
GUIDE SLEEVE POSITION		LOW IDLE	
	Ţ		
Rated speed rpm : 800	‡	<pre>control lever position degree :</pre>	74.0
Rack travel in mm : 0.6 Tolerance mm : + 0.3		tolerance degree : +	- 4.0
governor spring pre-tension	‡	<pre>control lever position degree : + tolerance degree : +</pre>	24.0 - 4.0
click setting x : 5.00	10	Setting point w/out b	
FULL LOAD DELIVERY AT FULL I	LOAD STOP	Rated speed rpm : rack travel mm :	450 4.40
Rated speed rpm : 1150 Aneroid pressure	+	Testing:	7.10
hPa : - Del. quantity	‡		450
cm3/1000 strokes : 83.0 Tolerance	0 1	rack travel mm :	4.90 - 0.10
cm3/1000 strokes : +- 1.0 Check tolerance	0 1	rack travel mm :	2.00
cm3/1000s. : +- 3.0 Spreed	0	Rated speed rpm : Tolerance 1/min : +	540 - 30
Tolerance cm3/1000 strokes : 3.5 Chask tolerance	5 ‡	Rated speed rpm :	100
Check tolerance cm3/1000S. : 8.0	0 -	CRT mm min. :>	19.00
		TORQUE CONTROL	
CONTROL LEVER	+	TORQUE CONTROL Rated speed rpm :	1150

Tolerance mm	: +- 0.05
Rated speed rpm	: 630
rack travel mm	: 10.80
Tolerance mm	: + 0.10
Rated speed rpm	: 750
rack travel mm	: 10.75
Tolerance mm	: + 0.05
Rated speed rpm	: 400

Rated speed rpm : 400 rack travel mm : 11.70 Tolerance mm : + 0.30

FUEL DELIVERY CHARACTERISTI	LO
-----------------------------	----

Aneroid pressure hPa :

Rated speed rpm : 750

Del. quantity cm3/1000 strokes : 78.0

Tolerance

cm3/1000 strokes : + 2.0

Check tolerance

cm3/1000s. : +- 4.0

BREAKAWAY

Rack travel in mm: 9.70
Rated speed rpm: 1195
Tolerance 1/min: + 5

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 20.00
Tolerance mm : + 1.00
Del. quantity
cm3/1000 strokes : 125.0
Tolerance

cm3/1000 strokes : +- 10.0 Check tolerance

cm3/1000s. : +- 13.0

LOW IDLE

Del. quantity cm3/1000 strokes : 11.0

Tolerance
cm3/1000 strokes : + 2.0
Check tolerance
cm3/1000S. : + 4.5
Spreed
Tolerance
cm3/1000 strokes : 5.5
Check tolerance
cm3/1000S. : 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 10.04.96 Test oil : ISO 4113

Combination No. : 9 400 085 381

Injection pump

Pump designation : PES6A100D120RS2868

EP type number : 9 400 084 037

Governor

Governer design. : RSV450...1200A0C2289

: R

Governer no. : 9 420 083 304

Cust. part No. : 3927763

Customer-spec. information
Customer : CUMMINS
Motor : 6BT
Power KW : 81.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.90
Tolerance mm : + 0.05
Check
tolerance mm : + 0.10

Rack travel in mm : 10.50
Tolerance mm : + 1.50

Firing order : 1-5- 3- 6- 2-

: 4

Phasing : 0-60-120-180-240

: -300

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : + 1.50
Difference ° CS : 3.50

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm : 8.75
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 76.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. : + 3.0

	+
Spreed	control lever
Tolerance	position degree : 112.0
cm3/1000 strokes : 3.5	tolerance degree : + 4.0
	-
Check tolerance	RATED SPEED
cm3/1000s. : 8.0	T MATEU OF LED
(III)/ (UUU) 0.0	rack travel mm : 7.70
not municipality	Rated speed rpm : 1245
Del. quantity cm3/1000 strokes : 23.5	Tolerance 1/min : +- 5
cm3/1000 strokes : 23.5	1 Toterance Trimin . The 5
	rack travel mm : 4.00
cm3/1000 strokes : +- 2.0 Check tolerance	
cm3/1000s. : +- 4.5	
	Tolerance 1/min : + 15
Spreed	
Tolerance -	rack travel mm : 0.85
cm3/1000 strokes : 5.5	Tolerance mm : +- 0.55
Check tolerance	Rated speed rpm : 1400
cm3/1000s. : 9.0	†
•	†
	1011 701 8
(B) SETTING OF INJECTION PUMP	LOW IDLE
WITH GOVERNOR	†
•	†
•	control lever
	position degree : 87.0
GUIDE SLEEVE POSITION -	tolerance degree : +- 4.0
•	†
Rated speed rpm : 800 -	Setting point w/out bumper spring
-	+
Rack travel in mm: 0.50	Rated speed rpm : 350
Tolerance mm : + 0.20	rack travel mm : 5.10
•	+
governor spring	† Testing:
pre-tension -	1
click setting x : 5.75	Rated speed rpm : 350
	rack travel mm : 5.60
	Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	+
-	rack travel mm : 2.00
Rated speed rpm : 1200	Rated speed rpm : 505
Aneroid pressure	Tolerance 1/min : + 30
hPa : -	
Del. quantity	Rated speed rpm : 100
cm3/1000 strokes : 76.0	
Tolerance	CRT mm min. : > 19.00
cm3/1000 strokes : + 1.0	
Check tolerance	
cm3/1000s. : + 3.0	TORQUE CONTROL
Spreed	
Tolerance	Rated speed rpm : 1200
cm3/1000 strokes : 3.5	rack travel mm : 8.75
Check tolerance	Tolerance mm : +- 0.05
cm3/1000s. : 8.0	L Contract and Con
CIB7 : 0000	Rated speed rpm : 650
	rack travel mm : 9.05
	Tolerance mm : + 0.05
CONTROL LEVER	L TOLET ATTICE THAT
CONTROL LEVER	Dated sneed nom . 990
1	Rated speed rpm : 880
	rack travel mm : 9.05

: +- 0.05 Tolerance mm Rated speed rpm : 1030 rack travel mm : 8.75 : +- 0.05 Tolerance mm FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa 650 Rated speed rpm : Del. quantity cm3/1000 strokes : 82.0 Tolerance cm3/1000 strokes : +- 2.0 Check tolerance cm3/1000s. : +- 4.0 BREAKAWAY Rack travel in mm : 7.70 Rated speed rpm : 1245 Tolerance 1/min : + 5 STARTING FUEL DELIVERY 100 Rated speed rpm : 20.00 rack travel mm : : +- 1.00 Tolerance mm Del. quantity cm3/1000 strokes : 168.0 Tolerance cm3/1000 strokes : + 8.0 Check tolerance cm3/1000s.: +- 11.0 LOW IDLE Del. quantity cm3/1000 strokes : 23.5 Tolerance cm3/1000 strokes : +-2.0 Check tolerance : +- 4.5 cm3/1000S.Spreed

5.5

9.0

End of test specification sheet

K23

Tolerance

cm3/1000s.

cm3/1000 strokes :

Check tolerance

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 08.04.96 Test oil : ISO 4113

Combination No. : 9 400 085 383

Injection pump

Pump designation : PES6A95D410RS2772 EP type number : 9 400 084 018

Governor

Governer design. : RQV300...1300AB1066

: -13L

Governer no. : 9 420 080 332

Cust. part No. :

Customer-spec. information

Customer : MBB

Motor : OM 366 LA-EURO 1

Power KW : 147.1

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.25
Tolerance mm : + 0.05
Check
tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 11.45
Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes :

Tolerance cm3/1000 strokes : + 0.5

Check tolerance cm3/1000s.

: **←** 2.5

104.0

Spreed Tolerance

cm3/1000 strokes :

Check tolerance cm3/1000s.

8.0

3.5

Del. quantity cm3/1000 strokes : 11.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 5.5 Check tolerance	Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever
cm3/1000s. : 9.0	position degree : 60.0 tolerance degree : +- 4.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	<pre>control lever position degree : 109.0 tolerance degree : +- 4.0</pre>
GUIDE SLEEVE TRAVEL	RATED SPEED
Rated speed rpm : 300 guide sleeve travel mm : 1.05 Tolerance mm : + 0.25	rack travel mm : 10.60 Rated speed rpm : 1360 Tolerance 1/min : +- 5 rack travel mm : 4.00
Rated speed rpm : 1500 guide sleeve travel mm : 8.55 Tolerance mm : + 0.05	Rated speed rpm : 1505 Tolerance 1/min : + 15 rack travel mm : 0.50
Rated speed rpm : 500 guide sleeve travel mm : 2.55	Tolerance mm : +- 0.50 Rated speed rpm : 1650
Rated speed rpm : 750	LOW IDLE
guide sleeve travel mm : 4.20 Tolerance mm : + 0.10	control lever position degree : 68.0 tolerance degree : +- 4.0
GUIDE SLEEVE POSITION Rated speed rpm : 1500	control lever position degree : 19.0 tolerance degree : +- 4.0
Rack travel in mm: 16.50 Tolerance mm: + 1.30	Testing:
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10
Rated speed rpm : 1300	Rated speed rpm : 100
Aneroid pressure hPa : 900	CRT mm min. :> 8.00
Del. quantity cm3/1000 strokes : 104.0	Rated speed rpm : 375
cm3/1000 strokes : + 0.5 Check tolerance cm3/1000s. : + 2.5	TORQUE CONTROL

Rated speed rpm	. 1300	+ Aneroid pressure
rack travel mm	11 45	hPa : -
rack travel mm Tolerance mm	- n ns	Rated speed rpm : 500
10 (C) di ICC IIIII	. ' " ' ' '	+ Del. quantity
Dated speed nom	• 800	cm3/1000 strokes : 60.0
Rated speed rpm	. 44./5	
rack travel mm	11.45	+ Tolerance
Tolerance mm	: ← 0.05	+ cm3/1000 strokes : +- 1.0
		+ Check tolerance
ALIEDATE IL TITLE		
ANEROID/ALTITUDE		†
COMPENSATOR TEST		The management of the same of
		+ BREAKAWAY
OFTTINO		
SETTING		10.00
Sakad anada ana		+ Rack travel in mm: 10.60
Rated speed rpm	: 500	Rated speed rpm : 1360
Pressure hPa	900	Tolerance 1/min : +- 5
rack travel mm Tolerance mm	11.45	†
Toterance mm	: +- 0.05	†
sem & my in-masses have		Part & Part & St. 18. Do 18. D
MEASUREMENT		+ STARTING FUEL DELIVERY
December LD.		T Detroid amount are a 400
Pressure hPa		+ Rated speed rpm : 100
Rated speed rpm	: 500	rack travel mm : 12.90
		+ Tolerance mm : + 0.10
Rated speed rpm	: 500	+ Del. quantity
		+ cm3/1000 strokes : 76.5
Pressure hPa	: 340	+ Tolerance
rack travel mm Tolerance mm	: 0.40	+ cm3/1000 strokes : + 7.5
Tolerance mm	: + 0.10	+ Check tolerance
		+ cm3/1000s. : +- 10.0
Pressure hPa		+
rack travel mm		+
Tolerance mm	: + 0.05	+
		+ LOW IDLE
START CUT-OUT		To Dal munditure
Dahad anasal are	. > 400	Del. quantity
Rated speed rpm		+ cm3/1000 strokes : 11.0
Rated speed rpm	: < 220	+ Tolerance
		+ cm3/1000 strokes : +- 2.0
Check		+ Check tolerance
speed 1/min	: > 80	+ cm3/1000s. : + 4.5
Check		Spreed
speed 1/min	: < 240	+ Tolerance
		+ cm3/1000 strokes : 5.5
FUEL DELIVERY CHA	ARACTERISTICS	- cm3/1000s. : 9.0
		†
Aneroid pressure	***	†
hPa	: 900	†
Rated speed rpm	: 800	†
Del. quantity		
cm3/1000 strokes	: 94.5	†
Tolerance		+ End of test specification sheet
cm3/1000 strokes	: +- 2.0	+
Check tolerance		+
cm3/1000s.	: +- 4.0	+
· ·		1

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 08.04.96 Test oil : ISO 4113

Combination No. : 9 400 085 384

Injection pump

Pump designation : PES4A95D410RS2887 EP type number : 9 400 084 040

Governor

Governer design. : RQV300...1300AB1307L

Governer no. : 9 420 080 385

Cust. part No. : 0260745402

Customer-spec. information

Customer : MBB_

Motor : OM 364A/ EURO I

Power KW : 81.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.95
Tolerance mm : + 0.05
Check

tolerance mm : +- 0.10

Rack travel in mm : 16.00 Tolerance mm : + 1.50

Firing order : 1-3-4-2

Phasing : 0-90-180-270

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 10.85
Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 85.0

Tolerance cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. : +- 3.0

Spreed Tolerance

cm3/1000 strokes : 3.5

8.0

Check tolerance cm3/1000s. :

Del. quantity	+ Tolerance
cm3/1000 strokes : 9.0	+ cm3/1000 strokes : 3.5
Tolerance	+ Check tolerance
cm3/1000 strokes : +- 2.0 Check tolerance	
cm3/1000s. : +- 4.5	Ţ
Spreed	
Tolerance	+ CONTROL LEVER
cm3/1000 strokes : 5.5	+
Check tolerance	+ control lever
cm3/1000s. : 9.0	+ position degree : 61.0
	tolerance degree : +- 4.0
(B) SETTING OF INJECTION PUMP	T control lever
WITH GOVERNOR	position degree : 109.0
The file of the fi	+ tolerance degree : + 4.0
	+
GUIDE SLEEVE TRAVEL	RATED SPEED
Rated speed rpm : 300	Track travel mm : 9.80
guide sleeve	Rated speed rpm : 1345
travel mm : 1.05	+ Tolerance 1/min : +- 5
Tolerance mm : + 0.25	+
- A - A	+ rack travel mm : 4.00
Rated speed rpm : 1500	Rated speed rpm : 1460
guide sleeve travel mm : 9.15	† Tolerance 1/min : +- 15
Tolerance mm : + 0.05	T rack travel mm : 0.50
roterance mm	Tolerance mm : +- 0.50
Rated speed rpm : 500	+ Rated speed rpm : 1580
	7 Nated Speed (bill 1 1500
guide sleeve	+ Naced Speed (pin : 1500
guide sleeve travel mm : 2.55	The Raced Speed (pin) . 1500
guide sleeve	
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25	LOW IDLE
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750	
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve	LOW IDLE
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20	LOW IDLE control lever
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve	LOW IDLE control lever position degree : 70.0
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20	LOW IDLE control lever
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20	LOW IDLE control lever position degree : 70.0 tolerance degree : +- 4.0 control lever
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION	LOW IDLE control lever position degree : 70.0 tolerance degree : +- 4.0 control lever position degree : 21.0
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10	LOW IDLE control lever position degree : 70.0 tolerance degree : +- 4.0 control lever
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1440	LOW IDLE control lever position degree : 70.0 tolerance degree : +- 4.0 control lever position degree : 21.0 tolerance degree : +- 4.0
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1440 Rack travel in mm : 16.50	LOW IDLE control lever position degree : 70.0 tolerance degree : +- 4.0 control lever position degree : 21.0
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1440	control lever position degree : 70.0 tolerance degree : +- 4.0 control lever position degree : 21.0 tolerance degree : +- 4.0 Testing:
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1440 Rack travel in mm : 16.50	control lever position degree : 70.0 tolerance degree : +- 4.0 control lever position degree : 21.0 tolerance degree : +- 4.0 Testing: Rated speed rpm : 300
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1440 Rack travel in mm : 16.50	control lever position degree : 70.0 tolerance degree : +- 4.0 control lever position degree : 21.0 tolerance degree : +- 4.0 Testing:
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1440 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP	control lever position degree : 70.0 tolerance degree : +- 4.0 control lever position degree : 21.0 tolerance degree : +- 4.0 Testing: Rated speed rpm : 300 rack travel mm : 8.00 Tolerance mm : +- 0.10
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1440 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300	control lever position degree : 70.0 tolerance degree : +- 4.0 control lever position degree : 21.0 tolerance degree : +- 4.0 Testing: Rated speed rpm : 300
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1440 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure	control lever position degree : 70.0 tolerance degree : +- 4.0 control lever position degree : 21.0 tolerance degree : +- 4.0 Testing: Rated speed rpm : 300 rack travel mm : 8.00 Tolerance mm : +- 0.10 Rated speed rpm : 100
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1440 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 700	control lever position degree : 70.0 tolerance degree : +- 4.0 control lever position degree : 21.0 tolerance degree : +- 4.0 Testing: Rated speed rpm : 300 rack travel mm : 8.00 Tolerance mm : +- 0.10
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1440 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 700 Del. quantity	LOW IDLE control lever position degree : 70.0 tolerance degree : + 4.0 control lever position degree : 21.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 8.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 9.00
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1440 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 85.0	control lever position degree : 70.0 tolerance degree : +- 4.0 control lever position degree : 21.0 tolerance degree : +- 4.0 Testing: Rated speed rpm : 300 rack travel mm : 8.00 Tolerance mm : +- 0.10 Rated speed rpm : 100
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1440 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 85.0 Tolerance	LOW IDLE control lever position degree : 70.0 tolerance degree : + 4.0 control lever position degree : 21.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 8.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 9.00
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1440 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 85.0	LOW IDLE control lever position degree : 70.0 tolerance degree : + 4.0 control lever position degree : 21.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 8.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 9.00
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1440 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 85.0 Tolerance cm3/1000 strokes : + 1.0	control lever position degree : 70.0 tolerance degree : + 4.0 control lever position degree : 21.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 8.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 9.00 Rated speed rpm : 415

rack travel mm Tolerance mm		+ Check tolerance + cm3/1000s. : +- 4.0
Rated speed rpm rack travel mm Tolerance mm	: 11.55	Aneroid pressure hPa : - Rated speed rpm : 500
Rated speed rpm rack travel mm Tolerance mm	: 950 : 11.15 : +- 0.05	Del. quantity cm3/1000 strokes : 58.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance
ANEROID/ALTITUDE COMPENSATOR TEST		+ cm3/1000s. : +- 3.0 BREAKAWAY
SETTING		‡
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 700	Rack travel in mm: 9.80 Rated speed rpm: 1345 Tolerance 1/min: +- 5
MEASUREMENT		STARTING FUEL DELIVERY
Pressure hPa Rated speed rpm	: - : 500	Rated speed rpm : 100 rack travel mm : 13.30 Tolerance mm : + 0.10
Rated speed rpm	: 500	Del. quantity cm3/1000 strokes : 83.0
Pressure hPa rack travel mm Tolerance mm	: 0.35	Tolerance
Pressure hPa rack travel mm Tolerance mm	: 350 : 0.70 : + 0.10	
START CUT-OUT		- LOW IDLE
Rated speed rpm Rated speed rpm	: > 100 : < 220	Del. quantity cm3/1000 strokes : 9.0 Tolerance cm3/1000 strokes : +- 2.0
Check speed 1/min Check	: > 80	Check tolerance cm3/1000s. : +- 4.5
speed 1/min	: < 240	Tolerance cm3/1000 strokes : 5.5
FUEL DELIVERY CHA	ARACTERISTICS	- + Check tolerance - cm3/1000s. : 9.0
Aneroid pressure hPa Rated speed rpm Del. quantity	: 700 : 800	
cm3/1000 strokes Tolerance cm3/1000 strokes		End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 08.04.96 : ISO 4113

Combination No. : 9 400 030 752

Injection pump

Pump designation : PES4A95D320/3RS2880

EP type number

: 9 410 037 214

Governor

Governer design. : RSV475...1100A0C867R

Governer no.

: F 002 A20 203

Cust. part No. : 3930151

Customer-spec. information : CUMMINS Customer Motor : 48T

Power KW

66.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

40 temp. °C Tolerance °C : + 2.0

: 1 417 413 047 Overflow valve

Inlet press. bar : 2.0 : +- 0.1 Tolerance bar

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

203.5 bar : + 1.5 Tolerance bar

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0 x Length mm : 600 **REMARKS**

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm 2.60 : + 0.05Tolerance mm Check : + 0.10tolerance mm

Rack travel in mm: 10.50 : +- 1.50 Tolerance mm

: 1-3-4-2 Firing order

Phasing : 0-90-180-240

BASIC SETTING

Rated speed rpm 1100

12.50 Rack travel in mm : Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 92.8

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance cm3/1000s. 3.0

Spreed Tolerance

cm3/1000 strokes :

4.0

Check tolerance cm3/1000s. 6.5 :

Del. quantity		1
cm3/1000 strokes	: 18.5	rack travel mm : 4.00
Tolerance	1013	+ Rated speed rpm : 1250
cm3/1000 @crokes	: +- 2.0	Traced opeca (piii 1 1230
Check tolerance	210	rack travel mm : 0.85
cm3/1000s.	: +- 4.5	+ Tolerance mm : + 0.55
Spreed		+ Rated speed rpm : 1300
Tolerance		The control of the co
cm3/1000 strokes	: 6.0	+ rack travel mm : 4.00
Check tolerance		+ Rated speed rpm : 1260
cm3/1000s.	: 8.0	
		1
(B) SETTING OF IN	NECTION PUMP	+ LOW IDLE
WITH GOVERNOR		+
		+
		+ control lever
		position degree : 87.0
GUIDE SLEEVE POSI	TION	tolerance degree : +- 4.0
	000	†
Rated speed rpm	: 800	Setting point w/out bumper spring
Rack travel in mm	: 0.50	+ Rated speed rpm : 475
Tolerance mm		+ rack travel mm : 6.35
		+
governor spring		+ Testing:
pre-tension		+
click setting x	: 4.00	+ Rated speed rpm : 475
		+ rack travel mm : 6.85 + Tolerance mm : + 0.10
		+ Tolerance mm : + 0.10
FULL LOAD DELIVER	Y AT FULL LOAD STOP	+
		+ Rated speed rpm : 100
Rated speed rpm		+
Aneroid pressure		+ CRT mm min. : > 19.00
hPa	: -	+
Del. quantity		
cm3/1000 strokes	: 92.8	+ TORQUE CONTROL
Tolerance		†
cm3/1000 strokes		+ Rated speed rpm : 1100
Check tolerance	. 7.6	+ rack travel mm : 12.50
	: +- 3.0	+ Tolerance mm : + 0.05
Spreed		T Dated and days 250
Tolerance		+ Kated speed rpm : /5U
cm3/1000 strokes		Rated speed rpm : 750 rack travel mm : 13.15 Tolerance mm : + 0.20
Check tolerance	: 6.5	† Tolerance mm : + U.2U
cm3/1000s.	: 0.3	†
		I
		I
CONTROL LEVER		
well it is the to be for the t		FUEL DELIVERY CHARACTERISTICS
control lever		-
position degree	: 105.0	Aneroid pressure
tolerance degree	: +- 4.0	h.D-
11 11	- · · · · · · · · · · · · · · · · · · ·	+ Rated speed rpm : 750
RATED SPEED		Del. quantity
		cm3/1000 strokes : 99.6
rack travel mm	: 11.50	+ Tolerance
Rated speed rpm	: 1145	cm3/1000 strokes : + 2.0
Tolerance 1/min	: +- 5	+
		•

Check tolerance cm3/1000s. : +- 4.0 **BREAKAWAY** Rack travel in mm : 11.5
Rated speed rpm : 1145
Tolerance 1/min : +-11.50 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.50 : +- 0.50 Tolerance mm Del. quantity cm3/1000 strokes : 120.5 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : +- 15.0 LOW IDLE Del. quantity cm3/1000 strokes : 18.5 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. : +- 4.5 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. 8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 10.04.96 : ISO 4113

Combination No. : 0 402 076 779

Injection pump

Pump designation : PES6P120A720RS3352

EP type number : 0 412 026 780

Governor

Governer design. : RSV400...900P4A611

Governer no.

: 0 421 833 489

Cust. part No. : RE63767

Customer-spec. information Customer : DEERE : 6081AF001

Motor

: 4.2

: 150.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line

Test oil inlet

temp. °C

40

Tolerance °C 2.0

Overflow valve : 1 457 413 010

Inlet press. bar : 2.0

Test nozzle holde

: 1 688 901 103 assembly

Opening pressure

208.5 bar : +- 1.5 Tolerance bar

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : +-1.0

Prestroke mm 3.60 Tolerance mm : +- 0.05

Check

: + 0.10tolerance mm

Rack travel in mm : 10.50

: +- 1.50 Tolerance mm

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

: + - 0.30Tolerance

Check

: +- 0.75 tolerance °NW

Start of delivery mark

*NW after s.o.d. : 7.00 Tolerance : + - 0.50

Check

tolerance °NW : + 0.75

Barrel no.

: 1

Beginning of delivery differende

and maximum rack

travel 14.00

Difference ° CS : 2.50

BASIC SETTING

Rated speed rpm :

800

Rack travel in mm: 13.90	Check tolerance cm3/1000s. : +- 3.0 Spreed
Tolerance mm : +- 0.05	Tolerance cm3/1000 strokes : 4.0
Del. quantity cm3/1000 strokes : 219.5	Check tolerance cm3/1000s. : 6.5
Tolerance cm3/1000 strokes : + 1.0	
Check tolerance cm3/1000s. : + 3.0	CONTROL LEVER control lever
Spreed	position degree : 100.0 tolerance degree : +- 4.0
cm3/1000 strokes : 4.0	RATED SPEED
Check tolerance cm3/1000s. : 6.5	rack travel mm : 12.90 Rated speed rpm : 910 Tolerance 1/min : +- 5
Del. quantity cm3/1000 strokes : 25.5 Tolerance	rack travel mm : 4.00 Rated speed rpm : 950
cm3/1000 strokes : + 3.0 + Check tolerance cm3/1000s. : + 5.0 +	Tolerance 1/min : + 5 rack travel mm : 0.85
Spreed Tolerance	Tolerance mm : + 0.55 Rated speed rpm : 1020
cm3/1000 strokes : 6.0 Check tolerance	rack travel mm : 4.00
cm3/1000s. : 8.0	Rated speed rpm : 970
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	LOW IDLE
GUIDE SLEEVE POSITION	control lever position degree : 77.0 tolerance degree : +- 4.0
Rated speed rpm : 800	Setting point w/out bumper spring
Rack travel in mm: 0.50 Tolerance mm: + 0.20	Rated speed rpm : 400 rack travel mm : 4.65
governor spring pre-tension click setting x : 4.75	Testing:
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 400 rack travel mm : 5.15 Tolerance mm : +- 0.10
Rated speed rpm : 800	Rated speed rpm : 100
Aneroid pressure hPa : -	CRT mm min. : > 19.00
Del. quantity cm3/1000 strokes : 219.5 Tolerance	TORQUE CONTROL
cm3/1000 strokes : +- 1.0	

Rated speed rpm rack travel mm Tolerance mm	; ; ;	800 13.90 0.05	
START CUT-OUT		·····	
Rated speed rpm	; >	100	
Check speed 1/min	; >	80	
BREAKAWAY	,,		
Rack travel in mm Rated speed rpm	:	12.90 910	
Tolerance 1/min	: +-	5	
STARTING FUEL DELI	LVERY		
Rated speed rpm	:	100	
rack travel mm Tolerance mm	: +-	20.50	
Del. quantity cm3/1000 strokes	:	105.0	
Tolerance cm3/1000 strokes	: +-	20.0	
Check tolerance cm3/1000s.	: +-	25.0	
LOW IDLE			
Del. quantity cm3/1000 strokes	:	25.5	
Tolerance cm3/1000 strokes	: +-	3.0	
Check tolerance cm3/1000s. Spreed	: +-	5.0	
Folerance cm3/1000 strokes	:	6.0	
Check tolerance cm3/1000S.	:	8.0	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 10.04.96 Test oil : ISO 4113

Combination No. : 0 402 076 780

Injection pump

Pump designation : PES6P12OA72ORS3352 EP type number : 0 412 026 780

Governor

Governer design. : RSV400...900P4A606

Governer no. : 0 421 833 490

Cust. part No. : RE62644

Customer—spec. information
Customer : DEERE
Motor : 6081AF001
Power KW : 150.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1 457 413 010

Inlet press. bar : 2.0

Test nozzle holde

assembly : 1 688 901 103

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm : 3.60 Tolerance mm : +- 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300 Tolerance : +- 0.30

Check

tolerance °NW : + 0.75

Start of delivery mark

*NW after s.o.d. : 7.00 Tolerance : +- 0.50

Check

tolerance *NW : + 0.75

Barrel no. : 1

Beginning of delivery differende

and maximum rack

travel : 14.00 Difference ° CS : 2.50

BASIC SETTING

Rated speed rpm : 800

	- Check tolerance
Rack travel in mm : 13.90 - Tolerance mm : +- 0.05 -	- cm3/1000s. : +- 3.0 - Spreed - Tolerance
Dod and the same a	cm3/1000 strokes : 4.0
Del. quantity cm3/1000 strokes : 219.5	- Check tolerance - cm3/1000s. : 6.5
Tolerance	- CONTROL LEVER
Check tolerance - cm3/1000s. : +- 3.0 -	- control lever
Spreed Tolerance	- position degree : 100.0 - tolerance degree : +- 4.0
cm3/1000 strokes : 4.0	- RATED SPEED
Check tolerance cm3/1000s. : 6.5	rack travel mm : 12.90 Rated speed rpm : 910 Tolerance 1/min : + 5
Del. quantity cm3/1000 strokes : 25.5 Tolerance	- - rack travel mm : 4.00 - Rated speed rpm : 950
cm3/1000 strokes : +- 3.0 Check tolerance	- Tolerance 1/min : +- 5
cm3/1000s. : +- 5.0 Spreed Tolerance	- rack travel mm : 0.85 - Tolerance mm : + 0.55 - Rated speed rpm : 1020
cm3/1000 strokes : 6.0	•
Check tolerance cm3/1000s. : 8.0	- rack travel mm : 4.00 - Rated speed rpm : 970 -
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	- LOW IDLE
GUIDE SLEEVE POSITION	- control lever - position degree : 77.0 - tolerance degree : +- 4.0
Rated speed rpm : 800	 Setting point w/out bumper spring
Rack travel in mm: 0.50 + Tolerance mm: + 0.20 +	Rated speed rpm : 400 rack travel mm : 4.65
governor spring pre-tension click setting x : 4.75	Testing:
	Rated speed rpm : 400 rack travel mm : 5.15
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : +- 0.10
Rated speed rpm : 800 Aneroid pressure	Rated speed rpm : 100
hPa : - + Del. quantity +	CRT mm min. : > 19.00
cm3/1000 strokes : 219.5	TORQUE CONTROL
cm3/1000 strokes : + 1.0	

Rated speed rpm rack travel mm Tolerance mm	:	+	800 13.90 0.05	
START CUT-OUT				
Rated speed rpm	;	>	100	
Check speed 1/min	:	>	80	
BREAKAWAY				
Rack travel in mm Rated speed rpm Tolerance 1/min			12.90 910 5	
STARTING FUEL DELI	[VI	ERY		
Rated speed rpm rack travel mm Tolerance mm	:	+-	100 20.50 0.50	
Del. quantity cm3/1000 strokes Tolerance	:		105.0	
cm3/1000 strokes Check tolerance	:	+-	20.0	
cm3/1000s.	:	+-	25.0	
LOW IDLE			· · · · · · · · · · · · · · · · · · ·	
Del. quantity cm3/1000 strokes	:		25.5	
Tolerance cm3/1000 strokes	:	+-	3.0	
Check tolerance cm3/1000s. Spreed	:	+-	5.0	
Tolerance cm3/1000 strokes	:		6.0	
Check tolerance cm3/1000s.	:		8.0	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 09.04.96 Test oil : ISO 4113

Combination No. : 0 402 736 865

Injection pump

Pump designation : PES6P12OA12ORS7349 EP type number : 0 412 726 920

Governor

Governer design. : RQV400...1150PA1170K

Governer no. : 0 421 815 436

Cust. part No. : 3928148

Customer-spec. information
Customer : CDC
Motor : 6BTA-A
Power KW : 156.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 2 417 413 086

Inlet press. bar : 2.0
Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 103

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter : 3.0
x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm : 3.60 Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 12.50
Tolerance mm : + 0.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance °NW : + 0.75

Start of delivery blocking

*NW after s.o.d. : 6.25

Tolerance : + 0.50

Check

tolerance °NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1150

Rack travel in mm : 14.35 Tolerance mm : + 0.05

Del. quantity	
cm3/1000 strokes : 177.5	rack travel mm : 13.10
17713	Rated speed rpm : 1315
Tolerance	Tolerance 1/min : +- 15
cm3/1000 strokes : + 1.0	
CHOP TOOK SETOKES . T TO	rack travel mm : 4.00
Check tolerance	Rated speed rpm : 1480
cm3/1000s. : + 4.0	Tolerance 1/min : +- 5
Cilist 10003 += 4.0	- Toterance Trimin . The J
Spreed	- rack travel mm : 0.50
Tolerance	- Tolerance mm : + 0.50
cm3/1000 strokes : 8.0	- Rated speed rpm : 1600
	L Rated Speed (pill : 1000
Check tolerance	
cm3/1000s. : 12.0	
	- LOW IDLE
Del. quantity	
cm3/1000 strokes : 15.0	_
Tolerance	- control lever
cm3/1000 strokes : +- 3.0	- position degree : 72.0
Check tolerance	- tolerance degree : +- 6.0
cm3/1000s. : +- 5.0	- total arite degree O.D
Spreed	- Testing:
Tolerance	- resumg. -
cm3/1000 strokes : 4.0	- Rated speed rpm : 420
Check tolerance	- rack travel mm : 5.80
cm3/1000s. : 8.0	- Tolerance mm : + 0.20
1 2.0	- rocci diace nun o.co
1	- Rated speed rpm : 300
(B) SETTING OF INJECTION PUMP	- Natea opeca i piii i ooo
WITH GOVERNOR	- CRT mm min. :> 8.80
1	
· ·	
4	Rated speed rpm : 420
	Rated speed rpm : 420
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 420
FULL LOAD DELIVERY AT FULL LOAD STOP	-
+	Rated speed rpm : 420 TORQUE CONTROL
Rated speed rpm : 1150	TORQUE CONTROL
Rated speed rpm : 1150 Anaroid pressure	TORQUE CONTROL Rated speed rpm : 1150
Rated speed rpm : 1150 Aneroid pressure hPa : 1200	TORQUE CONTROL Rated speed rpm : 1150 rack travel mm : 14.35
Rated speed rpm : 1150 Aneroid pressure hPa : 1200 Del. quantity	TORQUE CONTROL Rated speed rpm : 1150
Rated speed rpm : 1150 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 177.5	TORQUE CONTROL Rated speed rpm : 1150 rack travel mm : 14.35 Tolerance mm : +- 0.05
Rated speed rpm : 1150 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 177.5 Tolerance	TORQUE CONTROL Rated speed rpm : 1150 rack travel mm : 14.35 Tolerance mm : +- 0.05
Rated speed rpm : 1150 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 177.5 Tolerance cm3/1000 strokes : + 1.0	TORQUE CONTROL Rated speed rpm : 1150 rack travel mm : 14.35 Tolerance mm : +- 0.05
Rated speed rpm : 1150 Anaroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 177.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	TORQUE CONTROL Rated speed rpm : 1150 rack travel mm : 14.35 Tolerance mm : +- 0.05
Rated speed rpm : 1150 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 177.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0	TORQUE CONTROL Rated speed rpm : 1150 rack travel mm : 14.35 Tolerance mm : +- 0.05 Rated speed rpm : 800 rack travel mm : 12.60 Tolerance mm : +- 0.20 Rated speed rpm : 1250
Rated speed rpm : 1150 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 177.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed	TORQUE CONTROL Rated speed rpm : 1150 rack travel mm : 14.35 Tolerance mm : +- 0.05 Rated speed rpm : 800 rack travel mm : 12.60 Tolerance mm : +- 0.20 Rated speed rpm : 1250
Rated speed rpm : 1150 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 177.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance	TORQUE CONTROL Rated speed rpm : 1150 rack travel mm : 14.35 Tolerance mm : +- 0.05 Rated speed rpm : 800 rack travel mm : 12.60 Tolerance mm : +- 0.20 Rated speed rpm : 1250
Rated speed rpm : 1150 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 177.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 8.0	TORQUE CONTROL Rated speed rpm : 1150 rack travel mm : 14.35 Tolerance mm : +- 0.05 Rated speed rpm : 800 rack travel mm : 12.60 Tolerance mm : +- 0.20
Rated speed rpm : 1150 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 177.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance	TORQUE CONTROL Rated speed rpm : 1150 rack travel mm : 14.35 Tolerance mm : +- 0.05 Rated speed rpm : 800 rack travel mm : 12.60 Tolerance mm : +- 0.20 Rated speed rpm : 1250
Rated speed rpm : 1150 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 177.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance	TORQUE CONTROL Rated speed rpm : 1150 rack travel mm : 14.35 Tolerance mm : +- 0.05 Rated speed rpm : 800 rack travel mm : 12.60 Tolerance mm : +- 0.20 Rated speed rpm : 1250
Rated speed rpm : 1150 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 177.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance	TORQUE CONTROL Rated speed rpm : 1150 rack travel mm : 14.35 Tolerance mm : +- 0.05 Rated speed rpm : 800 rack travel mm : 12.60 Tolerance mm : +- 0.20 Rated speed rpm : 1250 rack travel mm : 14.20 Tolerance mm : +- 0.10
Rated speed rpm : 1150 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 177.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance	TORQUE CONTROL Rated speed rpm : 1150 rack travel mm : 14.35 Tolerance mm : +- 0.05 Rated speed rpm : 800 rack travel mm : 12.60 Tolerance mm : +- 0.20 Rated speed rpm : 1250 rack travel mm : 14.20 Tolerance mm : +- 0.10 ANEROID/ALTITUDE
Rated speed rpm : 1150 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 177.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance	TORQUE CONTROL Rated speed rpm : 1150 rack travel mm : 14.35 Tolerance mm : +- 0.05 Rated speed rpm : 800 rack travel mm : 12.60 Tolerance mm : +- 0.20 Rated speed rpm : 1250 rack travel mm : 14.20 Tolerance mm : +- 0.10 ANEROID/ALTITUDE COMPENSATOR TEST
Rated speed rpm : 1150 Anaroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 177.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000 strokes : 12.0	TORQUE CONTROL Rated speed rpm : 1150 rack travel mm : 14.35 Tolerance mm : +- 0.05 Rated speed rpm : 800 rack travel mm : 12.60 Tolerance mm : +- 0.20 Rated speed rpm : 1250 rack travel mm : 14.20 Tolerance mm : +- 0.10 ANEROID/ALTITUDE
Rated speed rpm : 1150 Anaroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 177.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000 strokes : 12.0 CONTROL LEVER control lever	TORQUE CONTROL Rated speed rpm : 1150 rack travel mm : 14.35 Tolerance mm : +- 0.05 Rated speed rpm : 800 rack travel mm : 12.60 Tolerance mm : +- 0.20 Rated speed rpm : 1250 rack travel mm : 14.20 Tolerance mm : +- 0.10 ANEROID/ALTITUDE COMPENSATOR TEST
Rated speed rpm : 1150 Anaroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 177.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000 strokes : 12.0 CONTROL LEVER control lever position degree : 118.0	TORQUE CONTROL Rated speed rpm : 1150 rack travel mm : 14.35 Tolerance mm : +- 0.05 Rated speed rpm : 800 rack travel mm : 12.60 Tolerance mm : +- 0.20 Rated speed rpm : 1250 rack travel mm : 14.20 Tolerance mm : +- 0.10 ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm : 1150
Rated speed rpm : 1150 Anaroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 177.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000 strokes : 12.0 CONTROL LEVER control lever	TORQUE CONTROL Rated speed rpm : 1150 rack travel mm : 14.35 Tolerance mm : +- 0.05 Rated speed rpm : 800 rack travel mm : 12.60 Tolerance mm : +- 0.20 Rated speed rpm : 1250 rack travel mm : 14.20 Tolerance mm : +- 0.10 ANEROID/ALTITUDE COMPENSATOR TEST
Rated speed rpm : 1150 Anaroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 177.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000 strokes : 12.0 CONTROL LEVER control lever position degree : 118.0	TORQUE CONTROL Rated speed rpm : 1150 rack travel mm : 14.35 Tolerance mm : +- 0.05 Rated speed rpm : 800 rack travel mm : 12.60 Tolerance mm : +- 0.20 Rated speed rpm : 1250 rack travel mm : 14.20 Tolerance mm : +- 0.10 ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm : 1150 Pressure hPa : 1200
Rated speed rpm : 1150 Anaroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 177.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000 strokes : 12.0 CONTROL LEVER control lever position degree : 118.0	TORQUE CONTROL Rated speed rpm : 1150 rack travel mm : 14.35 Tolerance mm : +- 0.05 Rated speed rpm : 800 rack travel mm : 12.60 Tolerance mm : +- 0.20 Rated speed rpm : 1250 rack travel mm : 14.20 Tolerance mm : +- 0.10 ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm : 1150

Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 1150 : 10.30 : ← 0.20
Rated speed rpm	: 1150
Pressure hPa rack travel mm Tolerance mm	: 685 : 13.40 : +- 0.30
Pressure hPa rack travel mm Tolerance mm	: 425 : 11.45 : ← 0.20
START CUT-OUT	
Rated speed rpm Rated speed rpm	: > 100 : < 315
Check speed 1/min Check	; > 80
speed 1/min	: < 325
FUEL DELIVERY CHA Aneroid pressure hPa Rated speed rpm	: 1200
Del. quantity cm3/1000 strokes Tolerance	: 146.0
cm3/1000 strokes Check tolerance	: +- 3.0
cm3/1000s. Spreed	: +- 6.0
Tolerance cm3/1000 strokes Check tolerance	: 8.0
cm3/1000s.	: 12.0
Aneroid pressure hPa Rated speed rpm Del. quantity	: - : 1150
cm3/1000 strokes Tolerance	: 96.5
cm3/1000 strokes Check tolerance	: +- 2.0
cm3/1000S.	: +- 4.0
BREAKAWAY	

Rated speed rpm Tolerance 1/min	
STARTING FUEL DEL	IVERY
Rated speed rpm rack travel mm Tolerance mm Del. quantity	: 100 : 12.50 : +- 0.50
cm3/1000 strokes Tolerance	
cm3/1000 strokes Check tolerance	: +- 20.0
cm3/1000s.	: +- 25.0
LOW IDLE Del. quantity	
cm3/1000 strokes Tolerance	: 15.0
cm3/1000 strokes Check tolerance	: +- 3.0
cm3/1000s. Spreed Tolerance	: +- 5.0
cm3/1000 strokes Check tolerance	: 4.0
cm3/1000s.	: 8.0

Rack travel in mm: 13.10

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 09,04,96 Edition : ISO 4113 Test oil

: 0 402 736 867 Combination No.

Injection pump

Pump designation : PES6P120A120RS7350

EP type number : 0 412 726 921

Governor

Governer design. : RQV400...1150PA1172K

Governer no. : 0 421 815 438

Cust. part No. : 3928147

Customer-spec. information Customer : CDC : 6BTA-A Motor Power KW : 142.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

40 temp. °C Tolerance °C : +- 2.0

Overflow valve : 2 417 413 086

Inlet press. bar : 2.0 : + 0.1 Tolerance bar

Test nozzle holde

: 1 688 901 103 assembly

Opening pressure

Tolerance bar

Test lines : 1 680 750 015

Outside diameter : 6.0

L14

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm 3,60 : +- 0.05 Tolerance mm Check

tolerance mm : + - 0.10

12.50 Rack travel in mm : Tolerance mm : + 0.50

: 1-5-3-6-2-Firing order

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance °NW : + 0.75

Start of delivery blocking

*NW after s.o.d. : 5.75 : +- 0.50 Tolerance

Check

tolerance "NW : + - 0.75

: 1 Barrel no.

BASIC SETTING

: 1150 Rated speed rpm

Rack travel in mm : 14.35 Tolerance mm : +- 0.05

Del. quantity	1
cm3/1000 strokes : 167.5	rack travel mm : 13.00
CHIEF TODO SCIONES ! TOTES	+ Rated speed rpm : 1310
Tolerance	+ Tolerance 1/min : + 15
cm3/1000 strokes : +- 1.0	1 rocci ance minimi
the reduction of the re	rack travel mm : 4.00
Check tolerance	Rated speed rpm : 1475
cm3/1000s. : +- 4.0	Tolerance 1/min : + 5
CIID7 (0005:	Total ance mining.
Spreed	rack travel mm : 0.50
Tolerance	+ Tolerance mm : + 0.50
cm3/1000 strokes : 8.0	Rated speed rpm : 1550
	- 110000 00000 10000
Check tolerance	
cm3/1000s. : 12.0	}
	+ LOW IDLE
Del. quantity	+
cm3/1000 strokes : 13.0	+
Tolerance	+ control lever
cm3/1000 strokes : +- 3.0	<pre>position degree : 72.0</pre>
Check tolerance	+ tolerance degree : +- 6.0
cm3/1000s. : +- 5.0	+
Spreed	+ Testing:
Tolerance	+
cm3/1000 strokes : 4.0	+ Rated speed rpm : 420
Check tolerance	+ rack travel mm : 6.50
cm3/1000s. : 8.0	† Tolerance mm : + 0.20
	<u></u>
4->	+ Rated speed rpm : 300
(B) SETTING OF INJECTION PUMP	†
WITH GOVERNOR	+ CRT mm min. :> 8.90
	Total aread pro . (20)
	Rated speed rpm : 420
FULL LOAD DELIVERY AT FULL LOAD STOP	
TOLL LOAD DELIVERY AT TOLL LOAD STOP	T TORQUE CONTROL
Rated speed rpm : 1150	I TONGOL CONTROL
Aneroid pressure	Rated speed rpm : 1150
hPa : 1200	+ rack travel mm : 14.35
Del. quantity	+ Tolerance mm : + 0.05
cm3/1000 strokes : 167.5	Total dilea iniii
Tolerance	Rated speed rpm : 800
cm3/1000 strokes : +- 1.0	rack travel mm : 12.90
Check tolerance	rack travel mm : 12.90 Tolerance mm : + 0.20
Check tolerance cm3/1000s. : +- 4.0	1
Spreed	Rated speed rpm : 1250
Tolerance	+ rack travel mm : 14.20
cm3/1000 strokes : 8.0	rack travel mm : 14.20 Tolerance mm : +- 0.10
Check tolerance	+
cm3/1000s. : 12.0	
	+ ANEROID/ALTITUDE
	+ COMPENSATOR TEST
	1
	Ť
CONTROL LEVER	Ţ
	SETTING
control lever	+
control lever position degree : 118.0	Rated speed rpm : 1150
control lever	+
control lever position degree : 118.0	Rated speed rpm : 1150

Rated speed rpm rack travel mm Tolerance mm	
Rated speed rpm	: 1150
Pressure hPa rack travel mm Tolerance mm	: 500 : 13.40 : ← 0.30
Pressure hPa rack travel mm Tolerance mm	: 375 : 12.30 : + 0.20
START CUT-OUT	
Rated speed rpm Rated speed rpm	: > 100 : < 315
Check speed 1/min Check	: > 80
speed 1/min	: < 325
Aneroid pressure hPa Rated speed rpm Del. quantity	
Del. quantity	
cm3/1000 strokes Tolerance cm3/1000 strokes	
CHIDA LONG STICKES	
Check tolerance cm3/1000s.	: +- 6.0
Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes	: +- 6.0 : 8.0
Check tolerance cm3/1000s. Spreed Tolerance	
Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure	: 8.0
Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure hPa Rated speed rpm	: 8.0
Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure hPa	: 8.0 : 12.0

Rated	speed	rpm	:	13	10
Tolera	ance 1	/min	:	+	15

STARTING	FUE	DFI	TVFRY

Rated speed rpm rack travel mm	: 100 : 14.00
Tolerance mm Del. quantity	: ← 0.50
cm3/1000 strokes	: 155.0
Tolerance cm3/1000 strokes	: +- 20.0
Check tolerance cm3/1000s.	: +- 25.0

LOW IDLE

Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance	: +-	13.0 3.0 5.0 4.0	
Check tolerance cm3/1000s.	:	8.0	

End of test specification sheet

Rack travel in mm : 13.00

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil : ISO 4113

: 04.04.96

Combination No. : 0 402 736 906

Injection pump

Pump designation : PES6P120A120RS7416

EP type number : 0 412 726 959

Governor

Governer design. : RQV400...1250PA1060

: -4K

Governer no.

: 0 421 815 514

Cust. part No. : 3928146

Customer-spec. information Customer : CDC Motor : 6BTA-A Power KW : 130.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 Tolerance °C

Overflow valve : 2 417 413 086

Inlet press. bar : 2.0
Tolerance bar : +- 0.1

Test nozzle holde

: 1 688 901 103 assembly

Opening pressure

208.5 bar Tolerance bar : + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

3.0 x inside diameter :

600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm : 3.60 Tolerance mm : +- 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 10.50 Tolerance mm : \leftarrow 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : ← 0.30

Check

tolerance °NW : **←** 0.75

Start of delivery blocking

*NW after s.o.d. : 6.25

Tolerance

: +- 0.50

Check

tolerance °NW : +- 0.75

: 1 Barrel no.

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 13.65 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 160.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000 strokes : + 4.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000 strokes : 12.0 Rated speed rpm : 12.60 FULL LOAD DELIVERY AT FULL LOAD STOR Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 15.0 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 15.0 Tolerance cm3/1000 strokes : 15.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000 strokes : + 5.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000 strokes : 8.0		4	Rated speed rpm : 1690
Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000s strokes : 8.0 Check tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0 Rated speed rpm : 12.60 FULL LOAD DELIVERY AT FULL LOAD STOR Aneroid pressure hPa : 1200 Del. quantity Rack travel in mm : 6.00 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 15.0 Tolerance cm3/1000 strokes : 15.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000 strokes : + 4.0 Spreed Tolerance cm3/1000s strokes : 8.0			guide sleeve
Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0 Rated speed rpm : 1250 Rated speed rpm : 1250 Rated speed rpm : 1250 Rated speed rpm : 1200 Del. quantity Rack travel in mm : 6.00 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 15.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000 strokes : + 4.0 Spreed Tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000s. : + 5.0 Tolerance cm3/1000strokes : 8.0	m3/1000 strokes :	160.5	
Check tolerance cm3/1000s. : + 4.0			Tolerance mm : + 0.50
Check tolerance cm3/1000s. : + 4.0 Rated speed rpm : 1390 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0 Rated speed rpm : 1250 Rated speed rpm : 1250 Rated speed rpm : 1250 Aneroid pressure hPa : 1200 Pel. quantity cm3/1000 strokes : 160.5 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 15.0 Tolerance cm3/1000 strokes : 4.0 Check tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000 strokes : + 4.0 Spreed Check tolerance cm3/1000 strokes : + 4.0 Tolerance cm3/1000 strokes : + 5.0 Check tolerance cm3/1000 strokes : 8.0		10	
Check tolerance cm3/1000s. : + 4.0 Rated speed rpm : 1390 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0 Rated speed rpm : 1250 Rated speed rpm : 420 Rated speed rpm : 1200 Rated speed rpm : 1200 Rated speed rpm : 1200 Del. quantity cm3/1000 strokes : 160.5 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 15.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000 strokes : + 4.0 Spreed Check tolerance cm3/1000s. : + 4.0 Check tolerance cm3/1000s. : + 5.0 Check tolerance cm3/1000s. : + 5.0	יים באיטונים שניים אינווויים ו]	GUIDE SLEEVE POSITION
Rated speed rpm : 1390	heck tolerance		
Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0 Rated speed rpm : 1250 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 15.0 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 15.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 5.0 Tolerance cm3/1000s. : + 5.0		+- 4.0	- Rated speed rpm : 1390
Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0 Rated speed rpm : 1250 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 15.0 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 15.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 5.0 Tolerance cm3/1000s. : + 5.0		Sees Topong of these describes the selection of the selection of the sees of the sees of the selection of the sees	
Cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0 Rated speed rpm : 1250 Rated speed rpm : 1200 Rack travel in mm : 6.00 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 15.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000 strokes : + 4.0 Cm3/1000 strokes : + 5.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000s. : + 5.0		•	- Rack travel in mm : 12.60
Check tolerance cm3/1000s. : 12.0 Rated speed rpm : 1250 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 160.5 Tolerance mm : + 0.20 Tolerance cm3/1000 strokes : 15.0 Check tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 4.0 Spreed Check tolerance cm3/1000s. : + 5.0 Cm3/1000 strokes : 8.0			
Check tolerance 12.0 Rated speed rpm : 1250 Rated speed rpm : 420 Aneroid pressure hPa : 1200 Del. quantity Rack travel in mm : 6.00 cm3/1000 strokes : 160.5 Tolerance mm : + 0.20 Tolerance Del. quantity cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Check tolerance Spreed Check tolerance Tolerance cm3/1000s. : + 5.0 cm3/1000 strokes : 8.0	in search a trucker		- FULL LOAD DELIVERY AT FULL LOAD STOP
Rated speed rpm : 420 Rack travel in mm : 6.00 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 160.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000 strokes : + 4.0 Cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 4.0 Check tolerance cm3/1000s. : + 5.0	heck tolerance	-	-
Rated speed rpm : 420	m3/1000s. :	12.0	The state of the s
Rack travel in mm : 6.00		-	
Rack travel in mm : 6.00	ated speed rpm :	420	
Tolerance mm : + 0.20	not travel in mm :	4.00	bel. quantity
Del. quantity			
cm3/1000 strokes : 15.0 + Check tolerance Tolerance cm3/1000 strokes : + 3.0 + Spreed Check tolerance cm3/1000s. : + 5.0 + cm3/1000 strokes : 8.0		4	
cm3/1000 strokes : + 3.0 Spreed Check tolerance cm3/1000s. : + 5.0 cm3/1000 strokes : 8.0	m3/1000 strokes :	15.0	
Check tolerance tolerance tom3/1000s. : + 5.0 tolerance tom3/1000 strokes : 8.0			
cm3/1000s. : + 5.0 + $cm3/1000$ strokes : 8.0		+- 3.0	
		+- 5.0	
Spreed		1	- Check tolerance
Tolerance + cm3/1000s. : 12.0		•	
cm3/1000 strokes : 4.0 +		4.0	•
Check tolerance		• • • • • • • • • • • • • • • • • • • •	•
cm3/1000s. : 8.0 — — — — — — — — — — — — — — — — — — —	no/10005.	0.0	CONTROL LEVER
		4	
(B) SETTING OF INJECTION PUMP + control lever		CTION PUMP	
WITH GOVERNOR + position degree : 117.0	ITH GOVERNOR	+	
tolerance degree : +- 4.0			tolerance degree : +- 4.U
GUIDE SLEEVE TRAVEL FATED SPEED	ITDE SLEEVE TRAVEL		RATED SPEED
	7406 0CCC15 11/11/CC	4	
Rated speed rpm : 400 + rack travel mm : 12.60		400	
guide sleeve + Rated speed rpm : 1325		†	
travel mm : 1.44 + Tolerance 1/min : + 15 Tolerance mm : + 0.20 +			loterance 1/min : +- 15
roterance mm : 4.00	oterance mm	1 0.20	rack travel mm : 4.00
Rated speed rpm : 1329 + Rated speed rpm : 1475	sted speed rpm :	1329	
guide sleeve + Tolerance 1/min : + 5		+	
travel mm : 7.83 +			
Tolerance mm : + 0.15	clerance mm :	+ 0.15	
Rated speed rpm : 939 + Rated speed rpm : 1550	ated speed rom .	030	
guide sleeve		/3/	Nated speed (pill : 1990
travel mm : 5.18 +		5.18	
Tolerance mm : + 0.25			
+ LOW IDLE		+	LOW IDLE
Rated speed rpm : 640 +		040	
guide sleeve + control lever		3 56 I	control lever
Tolerance mm : +- 0.25 + position degree : 71.0	avel mm .		
tolerance degree : +- 4.0	ravel mm :		

Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 420 : 6.00 : ← 0.10
Rated speed rpm	: 300
CRT mm min.	: > 5.80
Rated speed rpm	: 425
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 1250 : 13.65 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 800 : 11.85 : + 0.10
Rated speed rpm rack travel mm Tolerance mm	: 500 : 11.60 : + 0.20
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa	: 1250 : 1200
MEASUREMENT	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 1250 : 10.60 : + 0.20
Rated speed rpm	: 1250
Pressure hPa rack travel mm Tolerance mm	: 375 : 12.70 : + 0.30

speed 1/min	; > 80
Check speed 1/min	: < 290
FUEL DELIVERY CHA	ARACTERISTICS
Aneroid pressure	: 1200
Rated speed rpm	: 800
Del. quantity cm3/1000 strokes	: 131.5
Tolerance cm3/1000 strokes	: +- 3.0
Check tolerance cm3/1000s.	: +- 6.0
Spreed	; + 0.0
Tolerance cm3/1000 strokes	: 8.0
Check tolerance cm3/1000s.	: 12.0
Aneroid pressure	
hPa	
Rated speed rpm Del. quantity	: 1250
cm3/1000 strokes Tolerance	: 111.5
cm3/1000 strokes Check tolerance	: + 1.0
cm3/1000s.	: +- 4.0
BREAKAWAY	
Rack travel in mm Rated speed rpm Tolerance 1/min	: 12.60 : 1325 : + 15
STARTING FUEL DEL	IVERY
Rated speed rpm rack travel mm	: 100 : 14.10
Tolerance mm	: + 0.50
Del. quantity cm3/1000 strokes	: 155.0
Tolerance cm3/1000 strokes	: 20.0
Check tolerance cm3/1000s.	: +- 25.0

Check

START CUT-OUT

Pressure hPa : 260 rack travel mm : 11.60 Tolerance mm : + 0.20

Rated speed rpm : > 100 Rated speed rpm : < 280

Rated speed rpm	:		420
rack travel mm	:		6.00
Tolerance mm		+	0.20
Del. quantity			
cm3/1000 strokes	:		15.0
Tolerance			
cm3/1000 strokes	:	+-	3.0
Check tolerance			
cm3/1000s.	:	+-	5.0
Spreed			
Tolerance			
cm3/1000 strokes	:		4.0
Check tolerance			
cm3/1000s.	:		8.0
	-		

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 10.04.96 Test oil : ISO 4113

Combination No. : 0 402 746 611

Injection pump

Pump designation : PES6P12OA32ORS7372 EP type number : 0 412 726 940

Governor

Governer design. : RQV250...1400PA1279K

Governer no. : 0 421 815 508

Cust. part No. : 3866783

Customer-spec. information Customer : CDC Motor : 6BTA Power KW : 235.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 2 417 413 086

Inlet press. bar : 2.0
Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 103

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0
Tolerance bar : + 1.0

Prestroke mm : 4.00
Tolerance mm : + 0.05
Check

toleranse mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.30 Check

tolerance *NW : +- 0.75

Start of delivery blocking

*NW after s.o.d. : 11.00 Tolerance : + 0.50

Check

tolerance *NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1400

Rack travel in mm : 13.85
Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes	: 198,5	<u> </u>
	. (70.)	FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance cm3/1000 strokes	: + 1.0	Rated speed rpm : 1400 Aneroid pressure
Check tolerance cm3/1000s.	: + 4.0	+ hPa : 1200 + Del. quantity
Spreed Tolerance		+ cm3/1000 strokes : 198.5 + Tolerance - cm3/1000 strokes : + 1.0
cm3/1000 strokes	: 5.0	+ cm3/1000 strokes : + 1.0 + Check tolerance + cm3/1000s. : + 4.0
Check tolerance cm3/1000s.	: 9.0	+ Spreed + Tolerance
Del. quantity cm3/1000 strokes	: 34.0	+ cm3/1000 strokes : 5.0 + Check tolerance + cm3/1000s. : 9.0
Tolerance cm3/1000 strokes		
Check tolerance cm3/1000s. Spreed	: +- 5.0	CONTROL LEVER
Tolerance cm3/1000 strokes Check tolerance	: 8.0	control lever position degree : 118.5
cm3/1000s.	: 12.0	tolerance degree : + 4.0 RATED SPEED
(B) SETTING OF IN WITH GOVERNOR	NJECTION PUMP	rack travel mm : 12.80 Rated speed rpm : 1450 Tolerance 1/min : + 5
GUIDE SLEEVE TRAV	/EL	rack travel mm : 6.00 Rated speed rpm : 1585
Rated speed rpm guide sleeve		Tolerance 1/min : + 15
travel mm Tolerance mm	: 1.39 : +- 0.20	rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1700
Rated speed rpm guide sleeve	: 1455	Auteu specu i piii . 1755
travel mm Tolerance mm	: 9.16 : ← 0.15	LOW IDLE
Rated speed rpm guide sleeve	: 931	control lever
travel mm Tolerance mm	: 5.67 : +- 0.25	position degree : 74.5 tolerance degree : +- 4.0
Rated speed rpm guide sleeve	: 480	Testing:
travel mm Tolerance mm	: 3.18 : + 0.25	Rated speed rpm : 275 rack travel mm : 7.30 Tolerance mm : + 0.20
Rated speed rpm guide sleeve	: 1860	Rated speed rpm : 200
travel mm Tolerance mm	: 13.50 : +- 0.50	CRT mm min. : > 8.80

Rated speed rpm	: 350	Rated speed rpm : 1000 Del. quantity cm3/1000 strokes : 188.5
TORQUE CONTROL		+ Tolerance
Rated speed rpm rack travel mm Tolerance mm	: 13.85	cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 6.0 Spreed
Rated speed rpm rack travel mm Tolerance mm	: 1000 : 13.60 : ← 0.10	Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0
Rated speed rpm rack travel mm Tolerance mm	: 13.15	Aneroid pressure hPa : - Rated speed rpm : 1000 Del. quantity cm3/1000 strokes : 110.0
ANEROID/ALTITUDE COMPENSATOR TEST		Tolerance + cm3/1000 strokes : +- 1.0 + Check tolerance + cm3/1000s. : +- 3.0
SETTING		
Rated speed rpm Pressure hPa	: 1400 : 1200	BREAKAWAY
MEASUREMENT		Rack travel in mm: 12.80
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: 1400	Rated speed rpm : 1450 Tolerance 1/min : +- 5
Rated speed rpm		+ STARTING FUEL DELIVERY
Pressure hPa rack travel mm Tolerance mm	: 620	Rated speed rpm : 100 rack travel mm : 21.00 Tolerance mm : + 0.50 Del. quantity
Pressure hPa rack travel mm Tolerance mm	: 280 : 11.20 : +- 0.20	+ cm3/1000 strokes : 175.0 + Tolerance - cm3/1000 strokes : +- 20.0 + Check tolerance - cm3/1000s. : +- 25.0
START CUT-OUT		+
Rated speed rpm Rated speed rpm		LOW IDLE
Check speci 1/min Check	: > 80	Del. quantity cm3/1000 strokes : 34.0 Tolerance
speed 1/min	: < 210	cm3/1000 strokes : +- 3.0 Check tolerance
FUEL DELIVERY CHA	RACTERISTICS	
Aneroid pressure hPa	: 1200	cm3/1000 strokes : 8.0

L23

cm3/1000s.	:	12.0	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 04.08.95 : ISO 4113

Combination No. : 0 402 746 648

Injection pump

Pump designation : PES6P12DA32DRS7363 EP type number : 0 412 726 931

Governor

Governer design. : RQV325...1000PA1203

: -1K

Governer no.

: 0 421 815 46

Cust. part No. : 313GC5216-P2

Customer-spec. information Customer : MACK Motor : EM5260 : 195.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 2 417 413 084

Inlet press. bar : 3.0 Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 103 assembly

Opening pressure

208.5 bar Tolerance bar : **←** 1.5

Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0

600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300

Tolerance : +- 0.50

Check

: + - 0.75tolerance °NW

Start of delivery blocking

Tolerance : + 0.50

Check

tolerance °NW : ÷ 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1000

12.80 Rack travel in mm : : + - 0.05Tolerance mm

Del. quantity

cm3/1000 strokes : 254.5

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 4.0

Spreed

Tolerance cm3/1000 strokes	: 5.0	İ	
		FULL LOAD DELIVER	Y AT FULL LOAD STOP
Check tolerance cm3/1000s.	; 9.0	Rated speed rpm Aneroid pressure	: 1000
Del. quantity cm3/1000 strokes	: 43.5	+ hPa + Del. quantity	: 1200
Tolerance cm3/1000 strokes		- cm3/1000 strokes - Tolerance	: 254.5
Check tolerance cm3/1000s.	; 5.0	cm3/1000 strokes Check tolerance	
Spreed Tolerance		- cm3/1000s. - Spreed	: +- 4.0
cm3/1000 strokes Check tolerance cm3/1000s.		Tolerance cm3/1000 strokes Check tolerance	: 5.0
cm3/10003.	: 12.0	cm3/1000s.	: 9.0
(B) SETTING OF IN WITH GOVERNOR	UECTION PUMP		
		CONTROL LEVER	
GUIDE SLEEVE TRAV		control lever position degree	
Rated speed rpm guide sleeve travel mm	: 325 : 1.53	tolerance degree	: +- 0.0
Tolerance mm	÷ 0.25	T KATED SPEED	
Rated speed rpm guide sleeve	: 1056	rack travel mm Rated speed rpm Tolerance 1/min	: 1050
travel mm	: 9.06	+	
Tolerance mm	: + 0.25	rack travel mm Rated speed rpm	: 4.00 : 1200
Rated speed rpm guide sleeve	: 898	+ Tolerance 1/min	
travel mm Tolerance mm	: 7.74 : +- 0.25	rack travel mm Tolerance mm Rated speed rpm	: 0.50 : ← 0.50 : 1275
Rated speed rpm guide sleeve	: 371	Thatea speca ipin	, , , , , , , , , , , , , , , , , , , ,
travel mm	2.23	101.7015	
Tolerance mm Rated speed rpm	: + 0.25 : 421	+ LOW IDLE	
guide sleeve		+ control lever	
travel mm Tolerance mm	: 2.85 : + 0.25	+ position degree + tolerance degree	
Rated speed rpm guide sleeve	: 610	Testing:	
travel mm	: 4.40	Rated speed rpm	: 325_
Tolerance mm	: +- 0.25	rack cravel mm Tolerance mm	: 4.50 : + 0.10
Rated speed rpm guide sleeve	: 1440	Rated speed rpm	: 275
travel mm Tolerance mm	: 13.50 : + 0.25	CRT mm min.	: > 5.50
		•	

Rated speed rpm	: 425	†
		FUEL DELIVERY CHARACTERISTICS
TORQUE CONTROL		†
8-4-dd	. 4000	Aneroid pressure
Rated speed rpm	: 1000	+ hPa : 1200
rack travel mm		+ Rated speed rpm : 575
Tolerance mm	: ← 0.05	+ Del. quantity
		+ cm3/1000 strokes : 296.5
Rated speed rpm		+ Tolerance
rack travel mm		+ cm3/1000 strokes : + 3.0
Tolerance mm	: +- 0.10	+ Check tolerance
		+ cm3/1000s. : + 6.0
Rated speed rpm		+ Spreed
rack travel mm		+ Tolerance
Tolerance mm	: + 0.10	+ cm3/1000 strokes : 8.0
		+ Check tolerance
Rated speed rpm		+ cm3/1000s. : 12.0
rack travel mm	: 11.90	+
Tolerance mm	: +- 0.40	+ Aneroid pressure
		+ hPa : -
		Rated speed rpm : 800
ANEROID/ALTITUDE		Del. quantity
COMPENSATOR TEST		+ cm3/1000 strokes : 154.5
		+ Tolerance
		+ cm3/1000 strokes : + 2.0
SETTING		- Check tolerance
JE 1 12.110		+ cm3/1000s. : +- 4.0
Rated speed rpm	: 800	1 01100 10000
Pressure hPa		
r r cssar c r r a	, ,,,,,,,	
MEASUREMENT		- DIVENIMALI
HEAGOREHEIT		1
Pressure hPa	• -	Rack travel in mm: 11.80
Rated speed rpm	800	Rated speed rpm : 1050
rack travel mm		Tolerance 1/min : + 5
		Toterance that the s
Tolerance mm	: +- 0.20	
S. A. al. massed mass	. 000	
Rated speed rpm	: 800	OTABTTAIC FILE API TURBY
Dunantina time		+ STARTING FUEL DELIVERY
Pressure hPa	: 755	T parad and all and
rack travel mm	: 12.40	Rated speed rpm : 100
Tolerance mm	: +- 0.20	rack travel mm : 11.20
		+ Tolerance mm : +- 1.00
Pressure hPa	: 405	+ Del. quantity
rack travel mm	: 9.80	+ cm3/1000 strokes : 194.0
Tolerance mm	: +- 0.05	+ Tolerance
	٦٧	+ cm3/1000 strokes : +- 20.0
START CUT-OUT		+ cm3/1000s. : +- 30.0
		+
Rated speed rpm	: > 100	+
Rated speed rpm		+
- 4 4 4 4 4 4 4 4 4 4 4 4		
Check		+ LOW IDLE
speed 1/min	: > 80	1
Check		+ Del. quantity
speed 1/min	: < 255	- cm3/1000 strokes : 43.5
Specu Triffitt		+ Tolerance
		cm3/1000 strokes : +- 3.0
		T CHILL FORD SCLOKES . To 3.0

Check tolerance cm3/1000s. : +- 5.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 09.04.96 : ISO 4113 Test oil

Combination No. : 0 402 616 806

Injection pump

Pump designation : PE6P120A300LS7888 EP type number : 0 412 626 947

Governor

Governer design. : Governer no.

Cust. part No. : 04221425KZ0165-17

Customer-spec. information

Customer : KHD

: BF6M1015C Motor Power KW : 300.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C Tolerance °C : **←** 2.0

: 1 417 413 025 Overflow valve

Inlet press. bar : Tolerance bar

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

bar 208.5 Tolerance bar : +- 1.5

Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter : 3.0
x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm 4.05 : +- 0.05 Toterance mm

Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50 : +- 0.50 Tolerance mm

: 1-6-3-5-2-Firing order

Phasing : 0-60-120-180-240

: -300

: **←** 0.30 Tolerance

Check

: + 0.50 tolerance *NW

Start of delivery mark

Barrel no. : 1

BASIC SETTING

950 Rated speed rpm :

Rack travel in mm: 13.70 : +- 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 350.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 4.0

MO1

Spreed Tolerance cm3/1000 strokes	6.0	
Check tolerance cm3/1000s.	9.0	<u> </u>
Rated speed rpm	300	
Rack travel in mm Tolerance mm Del. quantity	4.70 ← 0.20	
cm3/1000 strokes Tolerance	25.0	
cm3/1000 strokes Check tolerance	+- 3.0	
cm3/1000s. Spreed Tolerance	+ 6.0	
cm3/1000 strokes	8.0	
Check tolerance cm3/1000s.	12.0	
(B) SETTING OF INJ	CTION PUMP	

FULL LOAD	DELIVERY	AT	FULL	LOAD	STOP
-----------	----------	----	------	------	------

Rated speed rpm Aneroid pressure	:	950
hPa Del. quantity	;	-
cm3/1000 strokes	:	350.0
Tolerance cm3/1000 strokes	: +-	1.0
Check tolerance cm3/1000s.	: +-	4.0
Spreed Tolerance	·	
cm3/1000 strokes	:	6.0
Check tolerance cm3/1000s.	:	9.0

TORQUE CONTROL

WITH GOVERNOR

Rated speed rpm : 950 rack travel mm : 13.70 Tolerance mm : + 0.05

STARTING FUEL	DELIVERY	
---------------	----------	--

Rated speed rpm	:	100
rack travel mm	:	21.00
Del. quantity		
cm3/1000 strokes	:	200.0
Tolerance		
cm3/1000 strokes	: +-	20.0
Check tolerance		
cm3/1000s.	: +-	24.0

LOW IDLE

Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: +- : +-	300 4.70 0.20 25.0 3.0 6.0 8.0	
cm3/1000s.	:	12.0	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 09.04.96 Edition Test oil : ISO 4113

Combination No. : 0 402 646 744

Injection pump

Pump designation : PE6P120A320LS7872 EP type number : 0 412 626 912

Governor

Governer design. : RQV300...1050PA1259

Governer no. : 0 421 814 169

Cust. part No. : 04221532 KY 0165-17

Customer-spec. information Customer : KHD : BF6M1015C Motor

Power KW : 270.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 : +-Tolerance °C 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 2.0 Tolerance bar : +- 0.1

Overflow quantity

: 195 min. L/h Tolerance L/h : +- 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

208.5 Tolerance bar : +- 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter : 3
x length mm : 1000 3.0

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm : 4.05 Tolerance mm : +- 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50 : +- 1.50 Tolerance mm

: 1-6-3-5-2-Firing order

: 0-60-120-180-240 Phasing

: -300

: +- 0.30 Tolerance

Check

tolerance *NW : + 0.50

Start of delivery mark

Barrel no.

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm: 13.20

Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 328.0

M03

Tolerance	t	0.1.1
cm3/1000 strokes	7.0	Rated speed rpm : 1230 guide sleeve
Check tolerance cm3/1000s.	: + 4.0	travel mm : 13.50 Tolerance mm : +- 0.50
Spreed	-	CUANT OF THE DOCUMENT
Tolerance cm3/1000 strokes	: 6.0	GUIDE SLEEVE POSITION Rated speed rpm : 1130
Check tolerance cm3/1000s.	: 9.0	Rack travel in mm : 12.70
Rated speed rpm	: 300	Tolerance mm : +- 1.30
Rack travel in mo		FULL LOAD DELIVERY AT FULL LOAD STOP
Del. quantity cm3/1000 strokes	: 23.0	Rated speed rpm : 1050 Aneroid pressure
Tolerance	+	hPa : 1700
cm3/1000 strokes Check tolerance	+	Del. quantity cm3/1000 strokes : 328.0
cm3/1000s. Spreed	: + 6.0	Tolerance cm3/1000 strokes : + 1.0
Tolerance cm3/1000 strokes	: 8.0	Check tolerance cm3/1000s. : +- 4.0
Check tolerance cm3/1000s.	+	Spreed Tolerance
CM3/ (UUUS.	: 12.0	cm3/1000 strokes : 6.0
(B) SETTING OF IN WITH GOVERNOR	JECTION PUMP	Check tolerance cm3/1000s. : 9.0
GUIDE SLEEVE TRAV	EL ±	CONTROL LEVER
Rated speed rpm guide sleeve travel mm Tolerance mm	: 300 : 1.24 : + 0.20	control lever position degree : 122.0 tolerance degree : +- 4.0 RATED SPEED
Rated speed rpm guide sleeve	: 1098	rack travel mm : 12.20
travel mm Tolerance mm	: 10.02 : + 0.15	Rated speed rpm : 1085 Tolerance 1/min : +- 5
Rated speed rpm guide sleeve	: 860	rack travel mm : 4.00 Rated speed rpm : 1125
travel mm Tolerance mm	: 5.59 : + 0.25	Tolerance 1/min : + 15
Rated speed rpm guide sleeve	: 560	rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1280
travel mm Tolerance mm	: 3.24 : +- 0.25	Nated Speed (pill : 1200
Rated speed rpm guide sleeve	: 1154	LOW IDLE
travel mm Tolerance mm	: 12.00 : + 0.25	

control lever position degree tolerance degree Testing: Rated speed rpm rack travel mm Tolerance mm Rated speed rpm CRT mm min. Rated speed rpm	: + 4.0 : 300 : 4.60 : + 0.10 : 200 : > 6.10	Tolerance cm3/1000 str Check toleral cm3/1000s. BREAKAWAY	y okes : 230.0 okes : +- 1.0 nce : +- 4.0 in mm : 12.20
TORQUE CONTROL Rated speed rpm		STARTING FUEL	rpm : 100
rack travel mm Tolerance mm	: + 0.05	rack travel m Tolerance mm Del. quantity cm3/1000 stro	: +- 0.30
ANEROID/ALTITUDE COMPENSATOR TEST		Tolerance cm3/1000 stro Check tolerar cm3/1000s.	nce
SETTING			. 1- 24.0
Rated speed rpm Pressure hPa rack travel mm Tolerance mm		LOW IDLE	rpm : 300
MEASUREMENT		Rated speed rack travel m Tolerance mm	nm : 4.60 : +- 0.20
Pressure hPa Rated speed rpm rack travel mm	: - : 400 : 8.30	+ Del. quantity + cm3/1000 stro + Tolerance	
Tolerance mm	: +- 0.20	cm3/1000 stro	nce
Rated speed rpm Pressure hPa	: 400 : 450	cm3/1000s. Spreed Tolerance	: +- 6.0
rack travel mm Tolerance mm	9.20 : +- 0.10	cm3/1000 stro	ice
Pressure hPa rack travel mm Tolerance mm	: 1000 : 12.00 : + 0.05	- cm3/1000s.	: 12.0
		‡	
FUEL DELIVERY CHA	RACTERISTICS	†	
Aneroid pressure hPa	: -	Ţ	

M05

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 09.04.96 Test oil : ISO 4113

Combination No. : 0 402 646 746

Injection pump

Pump designation : PE6P12OA32OLS7872 EP type number : 0 412 626 912

Governor

Governer design. : RQV300...950PA1238

Governer no. : 0 421 814 156

Cust. part No. : 04222809KY0165-17

Customer-spec. information

Customer : KHD

Motor : BF6M1015C Power KW : 300.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5
Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.05
Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 0.50

Firing order : 1-6-3-5-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance °NW : +- 0.50

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 900

Rack travel in mm : 14.20 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 358.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000S. : +- 4.0

M07

		+
Spreed Tolerance cm3/1000 strokes	; 6,0	FULL LOAD DELIVERY AT FULL LOAD STOP
	; 0.0	Rated speed rpm : 900
Check tolerance cm3/1000s.	; 9.0	† Aneroid pressure † hPa : 1700
Rated speed rpm	: 300	Del. quantity cm3/1000 strokes : 358.0
Rack travel in m		+ Tolerance + cm3/1000 strokes : +- 1.0
Tolerance mm Del. quantity	: + 0.20	Check tolerance : + 4.0
cm3/1000 strokes Tolerance		+ Spreed + Tolerance
cm3/1000 strokes Check tolerance		cm3/1000 strokes : 6.0 Check tolerance
cm3/1000s. Spreed	: +- 6.0	- cm3/1000s. : 9.0
Tolerance cm3/1000 strokes	: 8.0	
Check tolerance cm3/1000s.	: 12.0	+ CONTROL LEVER
		+ control lever + position degree : 123.0
(B) SETTING OF IN	NJECTION PUMP	tolerance degree : + 4.0
		RATED SPEED
GUIDE SLEEVE TRA		rack travel mm : 13.20 Rated speed rpm : 980
Rated speed rpm guide sleeve	: 300	Tolerance 1/min : + 5
travel mm Tolerance mm	: 1.13 : +- 0.20	rack travel mm : 4.00 Rated speed rpm : 1055
Rated speed rpm	: 994	Tolerance 1/min : + 15
guide sleeve travel mm	: 10.08	rack travel mm : 0.50 Tolerance mm : + 0.50
Tolerance mm	: + 0.15	Rated speed rpm : 1200
Rated speed rpm guide sleeve	: 700	
travel mm Tolerance mm	: 5.10 : + 0.25	LOW IDLE
Rated speed rpm	: 1160	control lever position degree : 77.0
guide sleeve travel mm Tolerance mm	: 13.50 : +- 0.50	tolerance degree : + 4.0
roterance (in)		Testing:
GUIDE SLEEVE POST	ITION	Rated speed rpm : 300 rack travel mm : 5.00
Rated speed rpm	: 1035	+ rack travel mm : 5.00 + Tolerance mm : + 0.10
Rack travel in mm Tolerance mm		Rated speed rpm : 200
TOTELAUCE WW	. + 1.30	CRT mm min. : > 6.70

Rated speed rpm	: 370	Check tolerance cm3/1000s. : + 4.0 Spreed
TORQUE CONTROL		+ Tolerance
Rated speed rpm rack travel mm Tolerance mm	: 14.20	- cm3/1000 strokes : 8.0 - Check tolerance - cm3/1000s. : 12.0
ANEROID/ALTITUDE COMPENSATOR TEST		BREAKAWAY
SETTING		Rack travel in mm : 13.20 Rated speed rpm : 980 Tolerance 1/min : +- 5
Rated speed rpm Pressure hPa rack travel mm	: 1700	STARTING FUEL DELIVERY
Tolerance mm	: +- 0.05	+
MEASUREMENT		Rated speed rpm : 100 rack travel mm : 8.90 Del. quantity
Pressure hPa Rated speed rpm		+ cm3/1000 strokes : 230.0 + Tolerance
rack travel mm Tolerance mm		t cm3/1000 strokes : + 20.0 Check tolerance
Rated speed rpm	: 490	+ cm3/1000s. : +- 24.0
Pressure hPa rack travel mm Tolerance mm	: 385 : 9.70 : ← 0.20	LOW IDLE
Pressure hPa rack travel mm Tolerance mm	: 13.00	Rated speed rpm : 300 rack travel mm : 5.00 Tolerance mm : + 0.20 Del. quantity
START CUT-OUT		- cm3/1000 strokes : 23.0 Tolerance
Rated speed rpm		cm3/1000 strokes : + 3.0 Check tolerance
Rated speed rpm	: < 220	+ cm3/1000s. : +- 6.0 + Spreed
Check speed 1/min	: > 80	Tolerance cm3/1000 strokes : 8.0 Check tolerance
Check speed 1/min	: < 240	cm3/1000s. : 12.0
FUEL DELIVERY CHA	ARACTERISTICS	_
Aneroid pressure		Ţ
hPa Rated speed rpm	400	End of test specification sheet
Del. quantity cm3/1000 strokes	: 230.0	Ī
Tolerance cm3/1000 strokes	: +- 1.0	<u> </u>

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 04.04.96 Test oil : ISO 4113

Combination No. : 0 402 646 909

Injection pump

Pump designation : PE6P12OA32ORS7138

: -10Z

EP type number : 0 412 626 923

Governor

Governer design. : RQV200...1100PA712

: -5

Governer no. : 0 421 813 951

Cust. part No. : 1318819

Customer-spec. information
Customer : SCANIA
Motor : DSC907

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Vibration damper

(RoBo diaphragm): 4.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 2.5
Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 104

Opening pressure

bar : 251.5 Tolerance bar : +- 1.5

M10

Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.45
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50
Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance °NW : + 0.50

Start of delivery mark

Tolerance : + 0.50

Check

tolerance *NW : + 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm : 12.15

Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 159.0	Tolerance cm3/1000 strokes : 8.0 Check tolerance
Tolerance cm3/1000 strokes : +- 1.0	cm3/1000s. : 12.0
Check tolerance cm3/1000s. : + 4.0	CONTROL LEVER
Spreed Tolerance cm3/1000 strokes : 8.0	position degree : 60.0 tolerance degree : +- 4.0
Check tolerance cm3/1000s. : 12.0	control lever position degree : 120.0 tolerance degree : + 4.0
Rated speed rpm : 250	RATED SPEED
Rack travel in mm: 5.00 Tolerance mm: + 0.30 Del. quantity cm3/1000 strokes: 16.0	rack travel mm : 11.15 Rated speed rpm : 1145 Tolerance 1/min : +- 5
Tolerance cm3/1000 strokes : + 3.0 + Check tolerance cm3/1000s. : + 6.0	rack travel mm : 4.00 Rated speed rpm : 1285 Tolerance 1/min : + 15
Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance	rack travel mm : 0.50 Tolerance mm : +- 0.50 Rated speed rpm : 1400
cm3/1000s. : 8.0	
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	LOW IDLE
	position degree : 64.0 tolerance degree : +- 4.0
GUIDE SLEEVE POSITION Rated speed rpm : 1130	<pre>control lever position degree : 9.0 tolerance degree : +- 4.0</pre>
Rack travel in mm: 16.50 Tolerance mm: +- 1.30	Testing:
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 250 rack travel mm : 5.00 Tolerance mm : +- 0.10
Rated speed rpm : 700 Aneroid pressure hPa : 1500	Rated speed rpm : 150
hPa : 1500 + 1500 + 1500 + 1500 + 1500 + 1500 + 1500	CRT mm min. : > 6.50
Tolerance cm3/1000 strokes : + 1.0	Rated speed rpm : 250
Check tolerance cm3/1000s. : + 4.0 + 5	TORQUE CONTROL
oprieed :	Rated speed rpm : 700

rack travel mm 12.15 Tolerance mm : +- 0.05 Rated speed rpm 1100 12.15 rack travel mm : Tolerance mm : +- 0.05 ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm 500 Pressure hPa 1500 12.15 rack travel mm : + 0.05Tolerance mm **MEASUREMENT** Pressure hPa 500 Rated speed rpm rack travel mm 10.30 Tolerance mm : +- 0.20 Rated speed rpm 500 220 Pressure hPa : 10.75 rack travel mm : Tolerance mm : + 0.15Pressure hPa 350 11.55 rack travel mm : + 0.05Tolerance mm FUEL DELIVERY CHARACTERISTICS Aneroid pressure 1500 hPa 1100 Rated speed rpm Del. quantity cm3/1000 strokes : 150.0 Tolerance cm3/1000 strokes : +-4.0 Check tolerance cm3/1000s. 6.0 Aneroid pressure hPa Rated speed rpm 500 Del. quantity cm3/1000 strokes : 116.0 Tolerance cm3/1000 strokes : +-1.0

: +-

4.0

BREAKAWAY

Rack travel in mm : 11.15
Rated speed rpm : 1145
Tolerance 1/min : +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 10.30
Tolerance mm : + 0.20
Del. quantity
cm3/1000 strokes : 130.0
Tolerance
cm3/1000 strokes : +- 20.0
Check tolerance

cm3/1000s. : +- 24.0

LOW IDLE

Rated speed rpm 250 : rack travel mm 5.00 Tolerance mm : +- 0.30 Del. quantity cm3/1000 strokes : 16.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. : +-6.0 Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. 8.0

End of test specification sheet

Check tolerance

cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil : 09.04.96 : ISO 4113

Combination No.

: 0 402 648 789

Injection pump

Pump designation : PE8P120A320LS7873

EP type number : 0 412 628 880

Governor

Governer design. : RQV300...1050PA1259

Governer no. : 0 421 814 169

Cust. part No. : 04222488KY0165-17

Customer-spec. information

Customer : KHD

Motor

: BF8M1015/C

Power KW

: 400.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C

Tolerance °C

: + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar :

Tolerance bar : + 0.1

Test nozzle holde

assembly

: 1 688 901 105

Opening pressure

bar

: 208.5

Tolerance bar

: +- 1.5

Test Lines : 1 680 750 075

Outside diameter : 8.0

M13

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 26.0 Tolerance bar : +- 1.0

Prestroke mm : 4.05 Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50

Tolerance mm : +- 1.50

Fining order : 1-8-7-2-6 :-5-4-3

Phasing

: 0-45-90-135-180

: -225-270-315

Tolerance

: +- 0.30

Check

tolerance *NW

: +- 0.50

Start of delivery mark

Tolerance

: +- 0.50

Check

tolerance °NW

: +- 0.75

Barrel no.

: 1

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm : 14.00

Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 340.0

Tolerance cm3/1000 strokes : +- 1.0	Rated speed rpm : 1230
Check tolerance cm3/1000s. : + 4.0	guide sleeve travel mm : 13.50 Tolerance mm : + 0.50
Spreed Tolerance cm3/1000 strokes : 6.0 -	GUIDE SLEEVE POSITION Rated speed rpm : 1118
Check tolerance cm3/1000s. : 9.0	Rack travel in mm: 13.00 Tolerance mm: + 1.30
Rated speed rpm : 300	- Toterance in
Rack travel in mm : 6.00 - Tolerance mm : +- 0.20 - Del. quantity	FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1050
cm3/1000 strokes : 23.0 - Tolerance	- Aneroid pressure - hPa : 1700
cm3/1000 strokes : +- 3.0 Check tolerance cm3/1000s. : +- 6.0	Del. quantity cm3/1000 strokes : 340.0 Tolerance
Spreed - Tolerance	cm3/1000 strokes : + 1.0 Check tolerance
cm3/1000 strokes : 8.0 - Check tolerance	- cm3/1000s. : +- 4.0 - Spreed
cm3/1000s. : 12.0	Tolerance : 6.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	- Check tolerance - cm3/1000s. : 9.0
GUIDE SLEEVE TRAVEL	CONTROL LEVER
Rated speed rpm : 300 guide sleeve travel mm : 1.24 Tolerance mm : + 0.20	control lever position degree : 122.0 tolerance degree : + 4.0 RATED SPEED
Rated speed rpm : 1103 guide sleeve	rack travel mm : 13.00
Travel mm : 10.19 Tolerance mm : + 0.15	- Rated speed rpm : 1090 - Tolerance 1/min : + 5
Rated speed rpm : 860 guide sleeve travel mm : 5.59	rack travel mm : 4.00 Rated speed rpm : 1135 Tolerance 1/min : +- 15
Tolerance mm : + 0.25 Rated speed rpm : 560 guide sleeve	rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1290
travel mm : 3.24	
Tolerance mm : + 0.25	•
	LOW IDLE

control lever position degree tolerance degree	: 78.0 : + 4.0	Rated speed rpm : 400 Del. quantity cm3/1000 strokes : 250.0 Tolerance
Testing:		cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0
Rated speed rpm rack travel mm Tolerance mm	: 6.00	BREAKAWAY
Rated speed rpm	: 200	Ī
CRT mm max.	: > 7.00	+ Rack travel in mm : 13.00 + Rated speed rpm : 1090 + Tolerance 1/min : +- 5
Rated speed rpm	: 345	
TORQUE CONTROL		STARTING FUEL DELIVERY
Rated speed rpm rack travel mm Tolerance mm	: 14.00	Rated speed rpm : 100 rack travel mm : 21.00 Tolerance mm : + 0.30 Del. quantity cm3/1000 strokes : 221.0
ANEROID/ALTITUDE COMPENSATOR TEST		Tolerance cm3/1000 strokes : + 20.0 Check tolerance cm3/1000s. : + 24.0
SETTING		<u> </u>
Rated speed rpm Pressure hPa rack travel mm Tolerance mm		LOW IDLE
MEASUREMENT		Rated speed rpm : 300 rack travel mm : 6.00 Tolerance mm : + 0.20
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: 400 : 9.40 : + 0.20	Del. quantity cm3/1000 strokes : 23.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance
Rated speed rpm	: 400	cm3/1000s. : +- 6.0 Spreed
Pressure hPa rack travel mm Tolerance mm	: 570 : 10.50 : + 0.10	Tolerance
Pressure hPa rack travel mm Tolerance mm	: 1100 : 13.00 : + 0.05	
	D. OTTOTOTO	End of test specification sheet
FUEL DELIVERY CHAP	RACTERISTICS	‡
Aneroid pressure		<u> </u>

M15

hPa

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 09.04.96 Edition : ISO 4113 Test oil

: 0 402 648 793 Combination No.

Injection pump

Pump designation : PE8P120A320LS7873 : 0 412 628 880 EP type number

Governor

Governer design. : RQ300/1050PA1268 : 0 421 801 802 Governer no.

: 04223118KY0165-17 Cust. part No.

Customer-spec. information

: KHD Customer

: BF8M1015/C Motor Power KW : 400.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 2.0 Tolerance °C

Overflow valve : 1 417 413 047

Inlet press. bar : 2.0 : + 0.1 Tolerance bar

Overflow quantity

160 min. L/h Tolerance L/h : ← 20.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

ğ

208.5 : +- 1.5 Tolerance bar

Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter : 3 x Length mm : 1000 3.0

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : +- 1.0

Prestroke mm 4.05 : + - 0.05Tolerance mm

Check

: + 0.10 tolerance mm

Rack travel in mm: 10.50 : +- 1.50 Tolerance mm

: 1-8-7-2-6 :-5-4-3 Firing order

: 0-45-90-135-180 Phasing : -225-270-315

: +- 0.30 Tolerance

Check

tolerance °NW : + - 0.50

Start of delivery mark

Tolerance : + - 0.50

Check

tolerance "NW : + - 0.75

1 Barrel no.

BASIC SETTING

1050 Rated speed rpm :

14.60 Rack travel in mm : : +- 0.05 Tolerance mm

Del. quantity cm3/1000 strokes : 340.0	guide sleeve travel mm : 6.00 Tolerance mm : + 0.10
Tolerance cm3/1000 strokes : + 1.0	Rated speed rpm : 1290 guide sleeve
Check tolerance cm3/1000s. : +- 4.0	travel mm : 11.50 Tolerance mm : + 0.50
Spreed Tolerance cm3/1000 strokes : 5.0	GUIDE SLEEVE POSITION
Check tolerance cm3/1000s. : 9.0	Rated speed rpm : 700 Rack travel in mm : 11.20
cm3/1000s. : 9.0 + + + + + + + + + + + + + + + + + + +	Tolerance mm : + 0.80
Rack travel in mm: 5.00	FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance mm : + 0.30 Del. quantity cm3/1000 strokes : 20.0	Rated speed rpm : 1050 Aneroid pressure
Tolerance cm3/1000 strokes : + 3.0 +	hPa : 1600 Del. quantity
Check tolerance cm3/1000s. : + 6.0	cm3/1000 strokes : 340.0 Tolerance
Spreed Tolerance cm3/1000 strokes: 8.0	<pre>cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000S. : +- 4.0</pre>
Check tolerance cm3/1000s. : 12.0	Spreed Tolerance
‡	cm3/1000 strokes : 5.0 Check tolerance
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	cm3/1000S. : 9.0
GUIDE SLEEVE TRAVEL	CONTROL LEVER
Rated speed rpm : 300 guide sleeve travel mm : 1.66 Tolerance mm : + 0.20	control lever position degree : 99.0 tolerance degree : +- 4.0 RATED SPEED
Rated speed rpm : 1106 guide sleeve travel mm : 6.53 Tolerance mm : + 0.15	rack travel mm : 13.60 Rated speed rpm : 1100 Tolerance 1/min : + 5
Rated speed rpm : 1050 guide sleeve travel mm : 6.00 Tolerance mm : + 0.10	rack travel mm : 4.00 Rated speed rpm : 1210 Tolerance 1/min : + 15
Rated speed rpm : 458 guide sleeve	rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1300
travel mm : 4.21 + Tolerance mm : +- 0.10 +	
Rated speed rpm : 580	LOW IDLE

		†	Rated speed rpm	: < 220
control lever		Ī	Check	
position degree	: 72.0	1	speed 1/min	; > 80
tolerance degree	: +- 4.0	+	Check	
Tankina		†	speed 1/min	: < 240
Testing:		Į		
Rated speed rpm	: 300	+	FUEL DELIVERY CHA	RACTERISTICS
rack travel mm	5.00	+	•	
Tolerance mm	: +- 0.10	İ	Aneroid pressure hPa	B 900
rack travel mm	; 2.00	Ţ	Rated speed rpm	400
Rated speed rpm		+	Del. quantity	
Tolerance 1/min	: +- 20	+	cm3/1000 strokes	: 250.0
Data dan and man	200	†	Tolerance	
Rated speed rpm	: 200	Ī	cm3/1000 strokes Check tolerance	; + 1.0
CRT mm min.	: > 6.20	Ţ	cm3/1000s.	: +- 4.0
• • • • • • • • • • • • • • • • • • • •		+		. ,,,,
TORQUE CONTROL			BREAKAWAY	
		+		
Rated speed rpm		+	~	47 46
rack travel mm	: 14.60	†	Rack travel in mm	
Tolerance mm	: +- 0.05	Ī	Rated speed rpm Tolerance 1/min	
			rocerance trimin	
ANEROID/ALTITUDE		+		
COMPENSATOR TEST		†	OTABETANO SUSI NEL	TUENV
		‡	STARTING FUEL DEL	TVERY
SETTING		+	Rated speed rpm	: 100
		+	rack travel mm Tolerance mm	: 9.40
Rated speed rpm	: 400	†		: +- 0.75
Pressure hPa rack travel mm		Ī	Del. quantity cm3/1000 strokes	• 145 0
Tolerance mm		1	Tolerance	1 14310
		+	cm3/1000 strokes	: +- 20.0
MEASUREMENT		+	Check tolerance	
Properties APP	•	†	cm3/1080s.	: +- 24.0
Pressure hPa Rated speed rpm	400	Ţ		
rack travel mm	9.40	+		
Tolerance mm	: +- 0.20	+		
Data anasa wa	. 400	†	LOW IDLE	
Rated speed rpm	: 400	1	Rated speed rpm	: 300
Pressure hPa	: 570	1	rack travel mm	: 5.00
rack travel mm	: 11.10	+	Tolerance mm	: +- 0.30
Tolerance mm	: ← 0.20	+	Del. quantity	. 20.0
Pressure hPa	: 1100	İ	cm3/1000 strokes Tolerance	: 20.0
rack travel mm	: 13.60	I	cm3/1000 strokes	: +- 3.0
Tolerance mm	: + 0.05	+	Check tolerance	
		+	cm3/1000s.	: +- 6.0
CTART CUT OUT		+	Spreed	
START CUT-OUT		I	Tolerance cm3/1000 strokes	: 8.0
Rated speed rpm	: > 100	+		
		•		

End of test specification sheet			+
		End of test specification sheet	‡
			+
			† † †
			† + +
			
			+
			
			† † †
			† † †
		19	+
			

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 09.04.96 : ISO 4113

Combination No. : 0 402 648 795

Injection pump

Pump designation : PE8P120A320LS7873 EP type number : 0 412 628 880

Governor

Governer design. : RQV300...1050PA1258K

Governer no. : 0 421 815 490

Cust. part No. : 04223330KY0165-17

Customer-spec. information

Customer : KHD

Motor

: BF8M1015/C

Power KW : 400.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C Tolerance *C : +- 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

min. l/h : 115 Tolerance l/h : + 10.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

: 208.5 bar Tolerance bar : + 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0

x Length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm : 4.05 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-8-7-2-6 : - 5- 4- 3

Phasing : 0-45-90-135-180

: -225-270-315 Tolerance : **←** 0.30

Check

tolerance "NW : + 0.50

Start of delivery mark

Tolerance : +- 0.50

Check

tolerance "NW : **←** 0.75

: 1 Barrel no.

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm: 14.70

Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes	: 360.0	+ guide sleeve + travel mm : 13.50
Tolerance cm3/1000 strokes	: + 1.0	Tolerance mm : +- 0.50
Check tolerance		GUIDE SLEEVE POSITION
cm3/1000s.	: +- 4.0	Rated speed rpm : 1175
Spreed Tolerance		Rack travel in mm: 13.70 Tolerance mm: + 1.50
cm3/1000 strokes	: 6.0	
Check tolerance cm3/1000s.	: 9.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Rated speed rpm	: 300	Rated speed rpm : 1050 Aneroid pressure
Rack travel in mm	: 4.80	+ hPa : 1000 + Del. quantity
Tolerance mm	: + 0.20	+ cm3/1000 strokes : 360.0
Del. quantity cm3/1000 strokes	: 23.0	+ Tolerance + cm3/1000 strokes : +- 1.0
Tolerance cm3/1000 strokes	• + 30	+ Check tolerance + cm3/1000s. : +- 4.0
Check tolerance		Spreed
cm3/1000s. Spreed	: +- 6.0	+ Tolerance + cm3/1000 strokes : 6.0
Tolerance cm3/1000 strokes	. • •	Check tolerance cm3/1000s. : 9.0
Check tolerance		+ (m3/10003 9.0
cm3/1000s.	: 12.0	
(0) 0577710 05 711	PATTAN DUMP	CONTROL LEVER
(B) SETTING OF INJ WITH GOVERNOR	JECTION PUMP	t control lever
**************************************	ann d'anna d'angle ann ann an dùtha a dhèan da dhèan an dhèan an da dhèan an dhèan an dhèan an dhèan dhèan dh	<pre>position degree : 119.0 tolerance degree : +- 4.0</pre>
GUIDE SLEEVE TRAVE	ī.	RATED SPEED
Rated speed rpm	: 300	+
guide sleeve travel mm	: 1.60	+ rack travel mm : 13.70 + Rated speed rpm : 1085
Tolerance mm	: + 0.20	Tolerance 1/min : +- 5
Rated speed rpm	: 1097	rack travel mm : 4.00
guide sleeve travel mm	: 10.07	+ Rated speed rpm : 1200 + Tolerance 1/min : +- 15
Tolerance mm	: + 0.15	+
Rated speed rpm	: 796	Tolerance mm : + 0.50
guide sleeve travel mm	: 6.87	Rated speed rpm : 1350
	: +- 0.25	+
Rated speed rpm	: 510	LOW IDLE
guide sleeve travel mm	: 4.02	-
Tolerance mm	: +- 0.25	control lever position degree : 71.0
Rated speed rpm	: 1340	+ tolerance degree : +- 4.0

Testing:

Rated speed rpm : 300 rack travel mm : 4.80 Tolerance mm : + 0.10

Rated speed rpm : 200

CRT mm max. : > 6.30

Rated speed rpm : 350

TORQUE CONTROL

Rated speed rpm : 1050 rack travel mm : 14.70 Tolerance mm : +- 0.05

Rated speed rpm : 800 rack travel mm : 14.00 Tolerance mm : + 0.25

Rated speed rpm : 600 rack travel mm : 12.70 Tolerance mm : + 0.25

Rated speed rpm : 450 rack travel mm : 11.40 Tolerance mm : +- 0.25

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 1050
Pressure hPa : 1000
rack travel mm : 14.70
Tolerance mm : +- 0.05

MEASUREMENT

Pressure hPa : Rated speed rpm : 1050
rack travel mm : 8.90
Tolerance mm : + 0.20

Rated speed rpm : 1050

Pressure hPa : 500 rack travel mm : 11.95 Tolerance mm : + 0.10

Pressure hPa : 800 rack travel mm : 14.10 Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : Rated speed rpm : 400
Del. quantity
cm3/1000 strokes : 250.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 4.0

BREAKAWAY

Rack travel in mm : 13.70
Rated speed rpm : 1085
Tolerance 1/min : +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 8.90 Tolerance mm : +- 0.30 Del. quantity cm3/1000 strokes : 155.0 Tolerance cm3/1000 strokes : +- 20.0 Check tolerance cm3/1000s. : +- 24.0

LOW IDLE

Rated speed rpm 300 4.80 rack travel mm Tolerance mm 0.20 Del. quantity 23.0 cm3/1000 strokes : Tolerance 3.0 cm3/1000 strokes : +-Check tolerance cm3/1000s. : +-6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 09,04,96 Edition Test oil : ISO 4113

Combination No. : 0 402 648 797

Injection pump

Pump designation : PE8P120A320LS7873 EP type number : 0 412 628 880

Governor

Governer design. : RQ750PA1231 Governer no. : 0 421 801 791

Cust. part No. : 04222112KY0165-17

Customer-spec. information : KHD Customer

: BF8M1015/C Motor

: 318.0 Power KW

TEST BENCH REQUIREMENTS

: 3.2 Inlet line

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5

: + 0.1 Tolerance bar

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

208.5 bar Tolerance bar

Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm 4.05 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 : **←** 1.50 Tolerance mm

: 1-8-7-2-6 :-5-4-3 Firing order

: 0-45-90-135-180 Phasing : -225-270-315

: +- 0.30 Tolerance

Check

: +- 0.50 tolerance *NW

Start of delivery mark

1 Barrel no. :

BASIC SETTING

700 Rated speed rpm :

Rack travel in mm : 13.30 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 365.0

Tolerance

cm3/1000 strokes : +-1.0

Check tolerance

cm3/1000s. : +--4.0

	+ Aneroid pressure
Spreed	+ hPa : -
Tolerance	+ Del. quantity
cm3/1000 strokes : 5.0	+ cm3/1000 strokes : 365.0
	+ Tolerance
Check tolerance	+ cm3/1000 strokes : +- 1.0
cm3/1000s. : 9.0	+ Check tolerance
	+ cm3/1000s. : + 4.0
Rated speed rpm : 300	+ Spreed
	+ Tolerance
Rack travel in mm : 4.70	+ cm3/1000 strokes : 5.0
Tolerance mm : +- 0.20	+ Check tolerance
Del. quantity	+ cm3/1000s. : 9.0
cm3/1000 strokes : 20.0	+
Tolerance	+
cm3/1000 strokes : +- 3.0	
Check tolerance	+ CONTROL LEVER
cm3/1000s. : +- 6.0	+
Spreed	+ control lever
Tolerance	+ position degree : 109.0
cm3/1000 strokes : 8.0	tolerance degree : +- 4.0
Check tolerance	+
cm3/1000s. : 12.0	+ RATED SPEED
	+
4-1	+ rack travel mm : 0.50
(B) SETTING OF INJECTION PUMP	+ Tolerance mm : +- 0.50
WITH GOVERNOR	+ Rated speed rpm : 900
	+
	+ ASSEMBLY GOVERNOR SETTING
GUIDE SLEEVE TRAVEL	750
7.0	+ Rated speed rpm : 750
Rated speed rpm : 768	+ rack travel mm : 12.30
guide sleeve	
travel mm : 6.28	+ Rated speed rpm : 780
Tolerance mm : + 0.15	+ Tolerance 1/min : + 4
- · · · · · · · · · · · · · · · · · · ·	† rack travel mm : 5.50
Rated speed rpm : 610	†
guide sleeve	+ rack travel mm : 0.50
travel mm : 0.52	+ Tolerance mm : + 0.50
Tolerance mm : +- 0.25	Rated speed rpm : 900
Dated around non- 1 000	T Dated aread non 254
Rated speed rpm : 900	+ Rated speed rpm : 751
guide sleeve travel mm : 14.60	rack travel mm : 12.30
travel mm : 14.60 Tolerance mm : + 0.15	Rated speed rpm : 781
Toterance inn : + U.15	Tolerance 1/min : +- 4
Rated speed rpm : 866	rack travel mm : 5.50
guide steeve	I rack cravet min . 3.30
travel mm : 12.00	Frack travel mm : 0.50
Tolerance mm : + 0.25	Tolerance mm : + 0.50
TOTAL MINE COLLECT	1 Sterior will
Rated speed rpm : 930	Rated speed rpm : 752
guide sleeve	rack travel mm : 12.30
travel mm : 13.50	1 401 51 410 5 11111
Tolerance mm : +- 0.50	Rated speed rpm : 782
received man to a made	+ Tolerance 1/min : +- 4
	+ rack travel mm : 5.50
FULL LOAD DELIVERY AT FULL LOAD STOP	_
. The motion of the control of the control of the	+ rack travel mm : 0.50
Rated speed rpm : 700	+ Tolerance mm : + 0.50
THE COURT OF THE C	1 Contraction of the contraction

Rated speed rpm	: 900	
Rated speed rpm rack travel mm	: 753 : 12.30	
Rated speed rpm Tolerance 1/min rack travel mm	: +- 4	
rack travel mm Tolerance mm	: 0.50 : +- 0.50	
Rated speed rpm rack travel mm	: 754 : 12.30	
Rated speed rpm Tolerance 1/min rack travel mm	: 784 : +- 4 : 5.50	
rack travel mm Tolerance mm Rated speed rpm	: ← 0.50	
Rated speed rpm rack travel mm	: 755 : 12.30	
Rated speed rpm Tolerance 1/min rack travel mm	: 785 : +- 4 : 5.50	
rack travel mm Tolerance mm	: 0.50 : + 0.50	
TORQUE CONTROL		
Rated speed rpm rack travel mm Tolerance mm	: 700 : 13.30 : + 0.05	
START CUT-OUT		
Rated speed rpm Rated speed rpm	: > 100 : < 560	
Check speed 1/min	; > 80	
Check speed 1/min	: < 580	

rack travel mm Tolerance mm	:	+	20.25
	:		205.0
Tolerance cm3/1000 strokes Check tolerance	:	+-	20.0
cm3/1000s.	:	+-	24.0

LOW IDLE		
Rated speed rpm rack travel mm Tolerance mm	: +-	300 4.70 0.20
Del. quantity cm3/1000 strokes	:	20.0
Tolerance cm3/1000 strokes	: +-	3.0
Check tolerance cm3/1000s.	: +-	6.0

Spreed
Tolerance
cm3/1000 strokes : 8.0
Check tolerance
cm3/1000s. : 12.0

End of test specification sheet

Rated speed rpm : 100

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 10.04.96 Edition : ISO 4113 Test oil

Combination No. : 0 402 736 885

Injection pump

Pump designation : PES6P120A120RS7370 EP type ** twoer : 0 412 726 934

Governo:

Governer design. : RQV400...1250PA1212K

Governer no. : 0 421 815 462

Cust, part No. : 3931599

Customer-spec. information Customer : CDC Motor : 6BTA-A Power KW : 131.0

TEST BENCH REQUIREMENTS

: 3.2 Inlet line

Test oil inlet

temp. °C 40 2.0 Tolerance °C

Overflow valve : 2 417 413 086

Inlet press. bar : 2.0 : + 0.1 Tolerance bar

Test nozzle holde

: 1 688 901 103 assembly

Opening pressure

208.5 bar : + 1.5 Tolerance bar

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter : x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance : **←** 0.50

Check

tolerance °NW : +- 0.75

Start of delivery blocking

*NW after s.o.d. : 7.00 : +- 0.50 Tolerance

Check

tolerance *NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 13.85

: **←** 0.05 Tolerance mm

Del. quantity cm3/1000 strokes :

170.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

: +- 4.0 cm3/1000s.

Spreed

Tolerance +	Tolerance mm : +- 0.20
cm3/1000 strokes : 8.0 Check tolerance	Rated speed rpm : 425
cm3/1000s. : 12.0	TORQUE CONTROL
Del. quantity	FORGOL CONTROL
cm3/1000 strokes : 19.5	Rated speed rpm : 1250
Tolerance +	rack travel mm : 13.85
cm3/1000 strokes : + 3.0 + Check tolerance	Tolerance mm : + 0.05
cm3/1000s, :+- 5.0	Rated speed rpm : 800
Spreed	rack travel mm : 11.80
Tolerance +	Tolerance mm : + 0.10
cm3/1000 strokes : 4.0 +	Rated speed rpm : 1000
cm3/1000s. : 8.0	rack travel mm : 12.50
+	Tolerance mm : + 0.20
(B) SETTING OF INJECTION PUMP	
WITH GOVERNOR	ANEROID/ALTITUDE COMPENSATOR TEST
I	CONFERENCE (EST
FULL LOAD DELIVERY AT FULL LOAD STOP	SETTING
Rated speed rpm : 1250	Rated speed rpm : 1250
Aneroid pressure + 1200 +	Pressure hPa : 1200
Del. quantity	MEASUREMENT
cm3/1000 strokes : 170.0	
Tolerance	Pressure hPa : -
cm3/1000 strokes : + 1.0 + Check tolerance	Rated speed rpm : 1250 rack travel mm : 9.40
cm3/1000s. : +- 4.0	Tolerance mm : +- 0.20
Spreed	TO COT GITO CHIM
Tolerance	Rated speed rpm : 1250
cm3/1000 strokes : 8.0	Pressure hPa : 440
Check tolerance + cm3/1000s. : 12.0 +	rack travel mm : 12.55
12.0	Tolerance mm : + 0.30
+	5.0
RATED SPEED	Pressure hPa : 265 rack travel mm : 10.80
rack travel mm : 12.80	Tolerance mm : +- 0.20
Rated speed rpm : 1330 +	
Tolerance 1/min : + 15 +	
nock thought mm . O.50	START CUT-OUT
rack travel mm : 0.50 + Tolerance mm : + 0.50 +	Rated speed rpm : > 100
Rated speed rpm : 1700	Rated speed rpm : < 315
+	
	Check speed 1/min : > 80
LOW IDLE	Check
1	speed 1/min : < 325
Testing:	
Rated speed rpm : 420	FUEL DELIVERY CHARACTERISTICS
Rated speed rpm : 420 + rack travel mm : 6.20 +	LOFF NEFTATIVE CHUINACLEUTOLICO
। संबंधिक का स्थापन (IDH) १ प्रकार १	

Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure hPa	: 1200 : 800 : 123.5 : + 3.0 : + 6.0 : 8.0 : 12.0
Rated speed rpm Del. quantity	: 1250
cm3/1000 strokes Tolerance	96.0
cm3/1000 strokes Check tolerance	: +- 1.0
cm3/1000s.	: +- 4.0
BREAKAWAY Rack travel in mm Rated speed rpm Tolerance 1/min	: 12.80 : 1330 : + 15
STARTING FUEL DEL	IVERY
Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 100 : 11.70 : +- 0.50 : 157.0 : +- 20.0 : +- 25.0
LOW IDLE	
Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 19.5 : +- 3.0 : +- 5.0

Tolerance cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 11.04.96 Test oil : ISO 4113

Combination No. : 9 400 085 382

Injection pump

Pump designation : PES6A100D120RS2869

EP type number : 9 400 084 038

Governor

Governer design. : RQV350...1100AB1303R

Governer no. : 9 420 080 381

Cust. part No. : 3356052

Customer—spec. information Customer : CUMMINS

Motor : 6 CTAA 215 hp

Power KW : 159.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

essembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : +- 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.60
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5- 3- 6- 2-

: 4

Phasing : 0-60-120-180-240

: -300

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : + 1.50
Difference °CS : 4.00

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 12.75
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 145.5

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. :

: +- 3.0

		1
Spreed		+
Tolerance	. 7 6	+ FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes	: 3.5	Rated speed rpm : 1100
Check tolerance		Aneroid pressure
cm3/1000s.	: 8.0	+ hPa : 1100
		+ Del. quantity
Del. quantity		+ cm3/1000 strokes : 145.5
cm3/1000 strokes	: 17.5	+ Tolerance
Tolerance cm3/1000 strokes	: +- 2.0	+ cm3/1000 strokes : +- 1.0 + Check tolerance
Check tolerance	: 4- 2.0	- cm3/1000s. : +- 3.0
cm3/1000s.	: +- 4.5	+ Spreed
Spreed	, ,,,,	+ Tolerance
Tolerance		+ cm3/1000 strokes : 3.5
cm3/1000 strokes	: 5.5	Check tolerance
Check tolerance		+ cm3/1000s. : 8.0
cm3/1000s.	: 9.0	†
		†
(B) SETTING OF IN	VIECTION PHMP	CONTROL LEVER
WITH GOVERNOR	40 FOLTONA LOUIL	T CONTINUE FEATURE
**************************************		control lever
		position degree : 55.0
GUIDE SLEEVE TRAV	/EL	tolerance degree : +- 4.0
		+
Rated speed rpm	: 1050	+ control lever
guide sleeve	- F 66	position degree : 110.0
travel mm	: 5.90	tolerance degree : +- 4.0
Tolerance mm	: +- 0.10	T RATED SPEED
Rated speed rpm	: 850	I RATED SPEED
guide sleeve	. 050	rack travel mm : 11.70
travel mm	: 4.75	+ Rated speed rpm : 1170
Tolerance mm	: +- 0.25	Tolerance 1/min : + 5
		+
Rated speed rpm	: 350	rack travel mm : 4.00
guide sleeve		Rated speed rpm : 1350
travel mm	: 1.45	Tolerance 1/min : +- 15
Tolerance mm	: +- 0.25	† made +manual == 0.50
Doted apard sam	: 600	+ rack travel mm : 0.50 + Tolerance mm : + 0.50
Rated speed rpm guide sleeve	: 600	Rated speed rpm : 1500
travel mm	: 3.65	Tated speed (bill . 1500
Tolerance mm	: +- 0.25	1
. कड्का जागक्क गाँगा		
Rated speed rpm	: 1350	+ LOW IDLE
guide sleeve		+
travel mm	: 8.35	+
Tolerance mm	: +- 0.25	+ control lever
		position degree : 68.0
CUITAGE OF FOUR BOOK	TTON	tolerance degree : +- 4.0
GUIDE SLEEVE POSI	ITOM	‡ control lever
Rated speed rpm	• 1360	+ position degree : 13.0
veren sheen thu	. 1300	tolerance degree : +- 4.0
Rack travel in mm	: 16.50	+ total alice degree 4.0
Tolerance mm		Testing:
50. 6. 100 1111		+
		•

Rated speed rpm	350	+
rack travel mm Tolerance mm	5.40 + 0.10	FUEL DELIVERY CHARACTERISTICS
Rated speed rpm		Aneroid pressure
CRT mm min.	; > 8.00	hPa : 1100 Rated speed rpm : 800
Rated speed rpm	: 375	Del. quantity cm3/1000 strokes : 148.0 Tolerance
TORQUE CONTROL		
Rated speed rpm	: 1100	cm3/1000s. : + 4.0
rack travel mm Tolerance mm	: 12.75 : + 0.05	+ Aneroid pressure + hPa : -
Rated speed rpm	: 800	Rated speed rpm : 500 Del. quantity
rack travel mm Tolerance mm	: 12.75 : + 0.05	cm3/1000 strokes : 82.0 Tolerance
oceratios inti		cm3/1000 strokes : +- 1.0 Check tolerance
ANEROID/ALTITUDE COMPENSATOR TEST		cm3/1000s. : +- 3.0
SETTING		BREAKAWAY
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1100 : 12.75 : + 0.05	Rack travel in mm : 11.70 Rated speed rpm : 1170 Tolerance 1/min : +- 5
MEASUREMENT		STARTING FUEL DELIVERY
ressure hPa)
ated speed rpm		Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : + 1.00 Del. quantity
Rated speed rpm	: 500	+ Tolerance mm : +- 1.00 + Del. quantity
ressure hPa ack travel mm		cm3/1000 strokes : 168.0 Tolerance
olerance mm		cm3/1000 strokes : +- 8.0 Check tolerance
ressure hPa ack travel mm olerance mm	: 300 : 0.70 : ← 0.10	cm3/1000s. : +- 11.0
TART CUT-OUT		LOW IDLE
ated speed rpm	: > 100	Del. quantity
lated speed rpm		cm3/1000 strokes : 17.5 Tolerance
heck peed 1/min	: > 80	cm3/1000 strokes : +- 2.0 Check tolerance
heck peed 1/min		cm3/1000s. : +- 4.5 Spreed
		Tolerance cm3/1000 strokes : 5.5

Check tolerance cm3/1000s.	•	9.0	
End of test speci	ificat	ion sheet	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 11.04.96 Test oil : ISO 4113

Combination No. : 9 400 085 386

Injection pump

Pump designation : PES6A95D41ORS2812 EP type number : 9 400 084 028

Governor

Governer design. : RQV350...1300AB1304L

: 9 420 080 382 Governer no.

Cust. part No. :

Customer-spec. information : MWM Customer Motor : 6.10 T Power KW : 124.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 : +- 1.5 Tolerance bar

: 1 680 750 014 Test lines

Outside diameter : 6.0

x inside diameter: 2.0 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.80 : +~ 0.05 Tolerance mm

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

: 1-5-3-6-2-Firing order

: 4

: 0-60-120-180-240 Phasing

: -300

Beginning of delivery differende

and maximum rack

10.50 travel : +- 1.50 Tolerance mm Difference ° CS : 2.00

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 11.65 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 91.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

: +- 3.C cm3/1000s.

	t		
Spreed Tolerance cm3/1000 strokes :	3.5	FULL LOAD DELIVER	RY AT FULL LOAD STOP
Check tolerance cm3/1000s. :	8.0	Aneroid pressure hPa Del. quantity	: 900
Del. quantity cm3/1000 strokes : Tolerance	12.5	cm3/1000 strokes Tolerance cm3/1000 strokes	: 91.0 : + 1.0
cm3/1000 strokes : Check tolerance	+- 2.0	Check tolerance cm3/1000s.	: +- 3.0
cm3/1000s. : Spreed	+ 4.5	Spreed Tolerance	
Tolerance cm3/1000 strokes :	5.5	cm3/1000 strokes Check tolerance	
Check tolerance cm3/1000s. :	9.0	cm3/1000s.	: 8.0
(B) SETTING OF INJE	CTION PUMP	CONTROL LEVER	
MILLI GOAFWOOK	+	control lever	. 59.0
GUIDE SLEEVE TRAVEL		position degree tolerance degree	
Rated speed rpm : guide sleeve	1350	control lever position degree	: 113.0
travel mm :	7.20 + 0.10	tolerance degree	
	+	RATED SPEED	
Rated speed rpm : guide sleeve	+	rack travel mm	: 10.60
travel mm : Tolerance mm :	+ 0.25 + 0.25	Rated speed rpm Tolerance 1/min	: 1418 : + 8
Rated speed rpm : guide sleeve	300	rack travel mm Rated speed rpm	: 4.00 : 1550
travel mm :	1.05 + 0.25	Tolerance 1/min	2 +- 15
	550	rack travel mm Tolerance mm	: 0.50 : +- 0.50
guide sleeve travel mm	2.75	Rated speed rpm	
	+ 0.25		
Rated speed rpm : guide sleeve	1500	LOW IDLE	
travel mm :	8.55		
Tolerance mm :	+- 0.25	control lever position degree tolerance degree	
GUIDE SLEEVE POSITIO	ON	control lever	
Rated speed rpm :	+	position degree tolerance degree	
Rack travel in mm : Tolerance mm :		Testing:	

Rated speed rpm rack travel mm Tolerance mm	: 350 : 5.80	+ Rated speed rpm : < 270
		+ Check + speed 1/min :> 80
Rated speed rpm	: 100	+ Check + speed 1/min : < 290
CRT mm min.	: > 8.00	
Rated speed rpm	: 400	FUEL DELIVERY CHARACTERISTICS
TORQUE CONTROL		Aneroid pressure hPa: 900 Rated speed rpm: 800
Dated aread non-	. 4700	Rated speed rpm : 800
Rated speed rpm	: 1300	+ Del. quantity + cm3/1000 strokes : 93.0
rack travel mm Tolerance mm	: + 0.05	+ Tolerance
		+ cm3/1000 strokes : +- 2.0
Rated speed rpm	: 800 : 12.05	+ Check tolerance + cm3/1000S. : +- 4.0
rack travel mm Tolerance mm	; +- 0.05	T (11107 10000). : TT 4.0
		Aneroid pressure
Rated speed rpm	: 880	+ hPa : -
rack travel mm Tolerance mm	: 12.05	Rated speed rpm : 500
loterance mm	: +- 0.05	+ Del. quantity + cm3/1000 strokes : 51.0
Rated speed rpm	: 1260	Tolerance
rack travel mm		+ cm3/1000 strokes : +- 1.5
rack travel mm Tolerance mm	: ← 0.05	- Check tolerance
		- cm3/1000s. : + 3.0
ANEROID/ALTITUDE		
COMPENSATOR TEST		BREAKAWAY
SETTING		Rack travel in mm : 10.60
		Rated speed rpm : 1418
Rated speed rpm		Tolerance 1/min : +- 8
Pressure hPa rack travel mm		İ
Tolerance mm	· + 0.05	
		STARTING FUEL DELIVERY
MEASUREMENT		Dotted annual man is 400
Pressure hPa		+ Rated speed rpm : 100 + rack travel mm : 20.00
Rated speed rpm	500	+ Tolerance mm : + 1.00
···mena mbana i bu		+ Del. quantity
Rated speed rpm	: 500	cm3/1000 strokes : 155.0 Tolerance
Pressure hPa	: 470	+ cm3/1000 strokes : + 8.0
rack travel mm	: 1.75	+ Check tolerance
Tolerance mm	: +- 0.15	+ cm3/1000s. : + 11.0
Pressure hPa	: 270	I
rack travel mm	: 0.60	+
Tolerance mm	: + 0.10	
		+ LOW IDLE
START CUT-OUT		Del. quantity
START COTTOOL		cm3/1000 strokes : 12.5
Rated speed rpm	: > 100	+
•		•

Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 5.5 Check tolerance cm3/1000s. : 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 11.04.96 Edition : ISO 4113 Test oil

Combination No. : 9 400 085 387

Injection pump

Pump designation : PES6A100D320/3RS2691

: -2

EP type number : 9 410 230 028

Governor

Governer design. : RQV450...1150AB1305R

: 9 420 080 383 Governer no.

Cust. part No. : 3355883

Customer-spec. information Customer : CUMMINS

: 6 CT - 8.3 L Motor

: 126.8 Power KW

TEST BENCH REQUIREMENTS

: 3.2 Inlet line

Test oil inlet

temp. °C Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 bar : + 1.5 Tolerance bar

Test lines : 1 680 750 014

Outside diameter : 6.0

N10

x inside diameter : 2.0 600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.85 : +- 0.05 Tolerance mm Check : ← 0.10 tolerance mm

Rack travel in mm: 10.50 Tolerance mm : \leftarrow 1.50

: 1-5-3-6-2-Firing order

: 4

: 0-60-120-180-240 Phasing

: -300

Beginning of delivery differende

and maximum rack

: 10.50 travel Tolerance mm : + 1.50 Difference * CS : 3.50

BASIC SETTING

Rated speed rpm : 1150

Rack travel in mm: 10.45 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 92.0

Tolerance cm3/1000 strokes : +- 1.0

Check tolerance ; +- 3.0 cm3/1000s.

	4	
Spreed Tolerance cm3/1000 strokes	: 3.5	FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1150
Check tolerance tm3/1000s.	: 8.0	Aneroid pressure
Del. quantity cm3/1000 strokes	: 11.5	Del. quantity cm3/1000 strokes : 92.0 Tolerance
Tolerance cm3/1000 strokes Check tolerance	: +- 2.0	cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 3.0
cm3/1000s. Spreed	: +- 4.5	Spreed Tolerance
Tolerance cm3/1000 strokes	: 5.5	cm3/1000 strokes : 3.5 Check tolerance
Check tolerance cm3/1000s.	: 9.0	cm3/1000s. : 8.0
(B) SETTING OF IN	JECTION PUMP	CONTROL LEVER
WITH GOVERNOR	+	control lever
GUIDE SLEEVE TRAV	EL ‡	position degree : 58.0 tolerance degree : +- 4.0
Rated speed rpm guide sleeve	: 1150	control lever position degree : 113.0
travel mm	: 7.50	tolerance degree : +- 4.0
Tolerance mm	: + 0.10	RATED SPEED
Rated speed rpm guide sleeve	: 900	rack travel mm : 9.40
travel mm Tolerance mm	: 5.65 : + 0.25	Rated speed rpm : 1195 Tolerance 1/min : + 5
Rated speed rpm guide sleeve	: 400	rack travel mm : 4.00 Rated speed rpm : 1300
travel mm Tolerance mm	: 1.85 : + 0.25	Tolerance 1/min : + 15
Rated speed rpm guide sleeve	: 650	rack travel mm : 0.50 Tolerance mm : +- 0.50 Rated speed rpm : 1450
travel mm Tolerance mm	: 4.35 : + 0.25	תשנים ספינים וויון הייסים מייטים
Rated speed rpm	: 1300	LOW IDLE
guide sleeve travel mm	: 8.95	
Tolerance mm	: + 0.25	control lever position degree : 72.0
GUIDE SLEEVE POSIT	TION	tolerance degree : +- 4.0
Rated speed rpm	: 1245	<pre>control lever position degree : 16.0 tolerance degree : +- 4.0</pre>
Rack travel in mm Tolerance mm		Testing:

Rated speed rpm rack travel mm Tolerance mm	: 450 : 4.90 : + 0.10
Rated speed rpm	: 100
CRT mm min.	; > 11.00
Rated speed rpm	: 500
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 1150 : 10.45 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	
Rated speed rpm rack travel mm Tolerance mm	: 850 : 10.75 : ← 0.05
Rated speed rpm rack travel mm Tolerance mm	
START CUT-OUT	
Rated speed rpm Rated speed rpm	: > 100 : < 300
Check speed 1/min Check	; > 80
speed 1/min	: < 320
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa Rated speed rpm	: - : 750
Del. quantity cm3/1000 strokes	: 91.0
Tolerance cm3/1000 strokes	: +- 2.0
Check tolerance cm3/1000s.	: +- 4.0
BREAKAWAY	

STARTING FUEL DEL Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	IVI	ERY +-	100 20.00 1.00	
rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	•	+-	20.00	
cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	:	4	164.0	
cm3/1000 strokes Check tolerance	:	4-		
		•	8.0	
	:	+	11.0	
LOW IDLE				
Del. quantity cm3/1000 strokes Tolerance	:		11.5	
cm3/1000 strokes	•	+-	2.0	
Check tolerance cm3/1000S. Spreed Tolerance	•	+-	4.5	
cm3/1000 strokes	:		5.5	
Check tolerance cm3/1000s.	:		9.0	

End of test specification sheet

N12

Rack travel in mm : 9.40 Rated speed rpm : 1195

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 11.04.96 Edition : ISO 4113 Test oil

Combination No. : 9 400 085 387EF

Injection pump

Pump designation : PES6A100D320/3RS2691

: -2

EP type number : 9 410 230 028

Governor

Governer design. : RQV450...1150AB1305R

Governer no. : 9 420 080 383

Cust. part No. : 3355882

Customer-spec. information

Customer : CUMMINS : 6 CT - 8.3 L Motor

: 111.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 bar : + 1.5 Tolerance bar

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

26.0 Test pressure bar: Tolerance bar : + 1.0

Prestroke mm : 2.85 : +- 0.05 Tolerance mm Check

: +- 0.10 tolerance mm

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

: 0-60-120-180-240 Phasing

: -300

Beginning of delivery differende

and maximum rack

: 10.50 travel travel Tolerance mm Tolerance mm : + 1.50 Difference ° CS : 3.50

BASIC SETTING

Rated speed rpm : 1150

Rack travel in mm: 10.85 Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 99.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 3.0

	_	<u> </u>
Spreed Tolerance cm3/1000 strokes	: 3.5	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance		Rated speed rpm : 1150 Aneroid pressure
cm3/1000s.	: 8.0	hPa : - Del. quantity
Del. quantity cm3/1000 strokes	: 11.5	cm3/1000 strokes : 99.0 Tolerance
Tolerance cm3/1000 strokes	: +- 2.0	cm3/1000 strokes : + 1.0 Check tolerance
Check tolerance cm3/1000s.	: +- 4.5	cm3/1000s. : +- 3.0 Spread
Spreed Tolerance		Tolerance cm3/1000 strokes : 3.5
cm3/1000 strokes Check tolerance	-	Check tolerance cm3/1000s. : 8.0
cm3/1000s.	: 9.0	
(B) SETTING OF IN	NJECTION PUMP	CONTROL LEVER
WITH GOVERNOR		- control lever
		position degree : 58.0
GUIDE SLEEVE TRAV		tolerance degree : +- 4.0
Rated speed rpm guide sleeve	: 1150 -	control lever position degree : 113.0
travel mm Tolerance mm	: 7.50 - : + 0.10 -	tolerance degree : +- 4.0
Rated speed rpm	: 900	RATED SPEED
guide sleeve	+	rack travel mm : 9.80
travel mm Tolerance mm	: 5.65 : + 0.25	Rated speed rpm : 1195 Tolerance 1/min : +- 5
Rated speed rpm	: 400	- rack travel mm : 4.00
guide sleeve	. 1 95	Rated speed rpm : 1310 Tolerance 1/min : + 15
travel mm Tolerance mm	: 1.85 : + 0.25	
Rated speed rpm guide sleeve	: 650	- rack travel mm : 0.50 - Tolerance mm : +- 0.50 - Rated speed rpm : 1450
travel mm	: 4.35	Autou opecu (piii) (TOO
Tolerance mm	: + 0.25	
Rated speed rpm guide sleeve	+	- LOW IDLE
travel mm	8.95	-
Tolerance mm	: + 0.25	- control lever - position degree : 72.0
		tolerance degree : +- 4.0
GUIDE SLEEVE POSI	TION	- control lever
Rated speed rpm	: 1245	position degree : 17.0 tolerance degree : +- 4.0
Rack travel in mm	: 16.50 T	· · · · · · · · · · · · · · · · · · ·
Tolerance mm		· Testing:

Rated speed rpm rack travel mm Tolerance mm	: 450 : 4.90 : +- 0.10
Rated speed rpm	: 100
CRT mm min.	; > 11.00
Rated speed rpm	: 500
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 1150 : 10.85 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 600 : 10.85 : +- 0.05
START CUT-OUT	
Rated speed rpm Rated speed rpm	: > 100 : < 370
Check speed 1/min Check	: > 80
speed 1/min	: < 390
FUEL DELIVERY CHAN	RACTERISTICS
Aneroid pressure	
hPa Rated speed rpm	600
Del. quantity cm3/1000 strokes	: 89.5
Tolerance cm3/1000 strokes Check tolerance	: +- 2.0
cm3/1000s.	: +- 3.8
BREAKAWAY	
Rack travel in mm Rated speed rpm Tolerance 1/min	: 1195
STARTING FUEL DELI	VERY
Rated speed rpm rack travel mm	: 100 : 20.00

N15_

Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: +- 1.00 : 164.0 : +- 8.0 : +- 11.0
LOW IDLE	
Del. quantity cm3/1000 strokes	: 11.5
Tolerance	. 11.5
cm3/1000 strokes	: +- 2.0
Check tolerance cm3/1000s. Spreed	: +- 4.5
Tolerance cm3/1000 strokes	: 5.5
Check tolerance	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 11.04.96 Edition : ISO 4113 Test oil

Combination No. : 9 400 085 387EG

Injection pump

Pump designation : PES6A100D320/3RS2691

: -2

: 9 410 230 028 EP type number

Governor

Governer design. : RQV450...1150AB1305R

: 9 420 080 383 Governer no.

Cust. part No. : 3355884

Customer-spec. information Customer : CUMMINS

Motor : 6 CT - 8.3 L

: 144.3 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 har : + 1.5 Tolerance bar

: 1 680 750 014 Test Lines

Outside diameter : 6.0

x inside diameter: 2.0 600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

2.85 Prestroke mm Tolerance mm : +- 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

: 1-5-3-6-2-Firing order

Phasing : 0-60-120-180-240

: -300

Beginning of delivery differende

and maximum rack

10.50 travel : + 1.50 Tolerance mm Difference * CS : 3.50

BASIC SETTING

Rated speed rpm : 1150

Rack travel in mm: 11.35 : **←** 0.05 Tolerance mm

Del. quantity cm3/1000 strokes : 107.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance : +- 3.0 cm3/1000s.

• • • • • •		•
Spreed Tolerance	‡	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes	; 3.5	Rated speed rpm : 1150
Check tolerance	-	Aneroid pressure
cm3/1000s.	: 8.0	hPa : -
	+	Del. quantity
Del. quantity	+	cm3/1000 strokes : 107.0
cm3/1000 strokes	: 11.5	Tolerance
Tolerance	+	cm3/1000 strokes : + 1.0
cm3/1000 strokes	: +- 2.0	Check tolerance
Check tolerance cm3/1000s.	: +- 4.5	cm3/1000s. : +- 3.0
Spreed	: - 4.5	Spreed Tolerance
Tolerance	I	cm3/1000 strokes : 3.5
cm3/1000 strokes	: 5.5	Check tolerance
Check tolerance	1	cm3/1000s. : 8.0
cm3/1000s.	: 9.0	
	+	
	+	
(B) SETTING OF IN WITH GOVERNOR	JECTION PUMP	CONTROL LEVER
	+	control lever
		position degree : 58.0
GUIDE SLEEVE TRAV	/EL ‡	tolerance degree : + 4.0
Rated speed rpm	: 1150	control lever
guide sleeve	+	position degree : 113.0
travel mm	: 7.50 +	tolerance degree : + 4.0
Tolerance mm	: + 0.10 +	
	+	RATED SPEED
Rated speed rpm	: 900 +	40.70
guide sleeve	+	rack travel mm : 10.30
travel mm	5.65	Rated speed rpm : 1195 Tolerance 1/min : + 5
Tolerance mm	: + 0.25	toterance minn : - 3
Rated speed rpm	: 400	rack travel mm : 4.00
guide sleeve	+	Rated speed rpm : 1315
travel mm	: 1.85	Tolerance 1/min : + 15
Tolerance mm	: ← 0.25 +	· · · · · · · · · · · · · · · · · · ·
	+	rack travel mm : 0.50
Rated speed rpm	: 650 +	Tolerance mm : + 0.50
guide sleeve	: 4.35	Rated speed rpm : 1450
travel mm Tolerance mm	+ 0.25	
rocerance mm	1 0.23	
Rated speed rpm	: 1300	LOW IDLE
guide sleeve	+	
travel mm	: 8.95	
Tolerance mm	: + 0.25 +	control lever
	+	position degree : 72.0
ALTER OF THE DARK		tolerance degree : +- 4.0
GUIDE SLEEVE POSI	ITUN	control lever
Rated speed rpm	: 1245	position degree : 17.0
varen sheen i hiii	· 1245	tolerance degree : +- 4.0
Rack travel in mm	: 16.50	Section and addition to the test
Tolerance mm		Testing:
	+	-
	·	

Rated speed rpm rack travel mm Tolerance mm	: 450 : 4.90 : +- 0.10
Rated speed rpm	: 100
CRT mm min.	: > 11.00
Rated speed rpm	: 500
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 1150 : 11.35 : +- 0.05
Rated speed rpm rack travel mm Tolerance mm	: 700 : 12.05 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 850 : 11.85 : +- 0.05
Rated speed rpm rack travel mm Tolerance mm	: 950 : 11.55 : + 0.05
START CUT-OUT	
Rated speed rpm Rated speed rpm	: > 100 : < 370
Check speed 1/min Check	: > 80
speed 1/min	: < 390
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure	
hPa Rated speed rpm	: - : 700
Del. quantity cm3/1000 strokes	: 115.0
Tolerance cm3/1000 strokes	: +- 2.0
Check tolerance cm3/1000s.	: + 4.0
BREAKAWAY	
Rack travel in mm Rated speed rpm	

Tolerance 1/min	; +- 5
STARTING FUEL DEL	.IVERY
Rated speed rpm rack travel mm Tolerance mm	: 100 : 20.00 : + 1.00
Del. quantity cm3/1000 strokes	: 164.0
Tolerance cm3/1000 strokes	: +- 8.0
Check tolerance cm3/1000s.	: + 11.0
LOW IDLE	
Del. quantity cm3/1000 strokes Tolerance	: 11.5
cm3/1000 strokes	: +- 2.0
Check tolerance cm3/1000s. Spreed	: +- 4.5
Tolerance cm3/1000 strokes	: 5.5
Check tolerance cm3/1000s.	: 9.0

End of test speci-	fication sheet

End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 11.04.96 Test oil : ISO 4113

Combination No. : 9 400 085 389

Injection pump

Pump designation : PES6A95D41ORS2812 EP type number : 9 400 084 028

Governor

Governer design. : RQV350...1300AB1309L

Governer no. : 9 420 080 386

Cust. part No. :

Customer-spec. information
Customer : MWM
Motor : 6.10 TCA
Power KW : 138.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40 Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05
Check
tolerance mm : + 0.10

Rack travel in mm : 10.50
Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : + 1.50
Difference ° CS : 2.00

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 11.95
Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 99.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : + 3.0

	+		
Spreed Folerance		FILL LOAD DELTHED	Y AT FULL LOAD STO
cm3/1000 strokes	: 3.5 I	FOLL LUMD DELIVER	I AT FULL LUAD STOR
		Rated speed rpm	: 1300
Check tolerance	<u> </u>	Aneroid pressure	000
cm3/1000s.	: 8.0	hPa	: 900
el. quantity	Ī	Del. quantity cm3/1000 strokes	: 99.0
m3/1000 strokes	: 13.0	Tolerance	. //.0
olerance	+	cm3/1000 strokes	: +- 1.0
m3/1000 strokes	: + 2.0	Check tolerance	
heck tolerance	· - +	cm3/1000s.	: ← 3.0
n3/1000s.	: +- 4.5	Spreed	
preed	†	Tolerance	: 3.5
olerance n3/1000 strokes	: 5.5	cm3/1000 strokes Check tolerance	; 3.3
neck tolerance	· I	cm3/1000s.	: 8.0
3/1000s.	: 9.0	emer todaet	· 0.0
	+		
B) SETTING OF IN	JECTION PUMP	CONTROL LEVER	
TH GOVERNOR	+		
	+	control lever	
TAR OLDEVE TON		position degree	
IDE SLEEVE TRAV	T I	tolerance degree	: +- 4.0
ted speed rpm	: 1350	control lever	
ide sleeve	+	position degree	: 114.0
avel mm	: 7.20	tolerance degree	
lerance mm	: + 0.10 +		
	+	RATED SPEED	
ted speed rpm	: 800 +	made description	. 10.00
ide sleeve avel mm	: 3.95	rack travel mm Rated speed rpm	: 10.90 : 1425
lerance mm	+ 0.25	Tolerance 1/min	: +- 5
SOT GETTO THE	-	1000 Mill	
ted speed rpm	: 300	rack travel mm	: 4.00
ide sleeve	+	Rated speed rpm	: 1560
avel mm	: 1.05	Tolerance 1/min	: +- 15
lerance mm	: + 0.25	rack travel mm	: 0.50
ted speed rpm	: 550	Tolerance mm	: + 0.50
ide sleeve	. 330		
avel mm	: 2.75	pood opod , pill	
lerance mm	: +- 0.25		
	+		
ted speed rpm	: 1500 +	LOW IDLE	
ide sleeve	: 8.55		
avel mm lerance mm	: + 0.25	control lever	
cerative tixti	I	position degree	: 69.0
		tolerance degree	
IDE SLEEVE POSI	TION +	_	1,10
	+	control lever	4
ated speed rpm	: 1490	position degree	
al. Americal design	14 50	tolerance degree	: +- 4.0
ck travel in mm lerance mm	1	Testing:	

Rated speed rpm	, 750	1
rack travel mm		
Tolerance mm	: + 0.10	FUEL DELIVERY CHARACTERISTICS
Rated speed rpm	: 100	Aneroid pressure hPa : 900
CRT mm min.	; > 8.00	hPa : 900 + Rated speed rpm : 800
		+ Del. quantity
Rated speed rpm	: 400	cm3/1000 strokes : 94.5 Tolerance
TORQUE CONTROL		cm3/1000 strokes : +- 2.0 Check tolerance
TOTAL CONTINOL		cm3/1000s. : +- 4.0
Rated speed rpm	: 1300	+
rack travel mm	: 11.95	+ Aneroid pressure
Tolerance mm	: +- 0.05	+ hPa : - Rated speed rpm : 500
Rated speed rpm	: 800	+ Rated speed rpm : 500 + Del. quantity
rack travel mm	11.95	= cm3/1000 strokes : 51.0
rack travel mm Tolerance mm	: +- 0.05	+ Tolerance
		+ cm3/1000 strokes : + 1.0
ANEROID/ALTITUDE COMPENSATOR TEST		+ cm3/1000s. : + 3.0
		BREAKAWAY
SETTING		TOREARAWAT
Rated speed rpm	: 500	Rack travel in mm : 10.90
Pressure hPa	900	Rated speed rpm : 1425
rack travel mm		+ Tolerance 1/min : +- 5
Tolerance mm	: +- 0.05	†
MEASUREMENT		
Pressure hPa		STARTING FUEL DELIVERY
Rated speed rpm	500	Rated speed rpm : 100
nated speed thin	. 200	+ rack travel mm : 20.00
Rated speed rpm	: 500	+ Tolerance mm : + 1.00
		Del. quantity
Pressure hPa	: 380	+ cm3/1000 strokes : 155.0
rack travel mm	: 1.80	Tolerance
Tolerance mm	: +- 0.10	+ cm3/1000 strokes : +- 8.0 + Check tolerance
Pressure hPa	: 190	+ cm3/1000s. : + 11.0
rack travel mm	: 0.55	1
Tolerance mm	: +- 0.05	+
		†
START CUT-OUT		LOW IDLE
START CUT-OUT		I TOM TOPE
Rated speed rpm	: > 100	Del. quantity
Rated speed rpm		- cm3/1000 strokes : 13.0
		+ Tolerance
Check		+ cm3/1000 strokes : +- 2.0
speed 1/min	: > 80	Check tolerance
Check	: < 290	+ cm3/1000s. : +- 4.5
speed 1/min	: < 290	+ Spreed + Tolerance
		cm3/1000 strokes : 5.5
		1 2

Check tolerance cm3/1000s.	:	9.0	
			

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 11.04.96

Test oil

: ISO 4113

Combination No. : 9 400 085 390

Injection pump

Pump designation : PES6A95D410RS2886 EP type number : 9 400 084 039

Governor

Governer design. : RQV300...1300AB1310L

Governer no.

: 9 420 080 388

Cust. part No. : 0260746902

Customer-spec. information

Customer

: MBB

Motor

: OM 366LA/EURO I

Power KW

: 150.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C

Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

bar

: 173.5

Tolerance bar : +- 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

N23

x inside diameter : 3.0 x Length mm :

600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 26.0 Tolerance bar : +- 1.0

Prestroke mm 3.00 Tolerance mm : +- 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 11.85
Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 95.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 3.0

Spreed

Tolerance

cm3/1000 strokes :

3.5

Check tolerance

cm3/1000s.

8.0

	+ Spreed
Del. quantity	+ Tolerance
cm3/1000 strokes : 13.0	+ cm3/1000 strokes : 3.5
Tolerance cm3/1000 strokes : +- 2.0	+ Check tolerance + cm3/1000s. : 8.0
Check tolerance	± cm3/10005. : 6.0
cm3/1000s. : +- 4.5	
Spreed	
Tolerance	→ CONTROL LEVER
cm3/1000 strokes : 5.5	†
Check tolerance	+ control lever
cm3/1000s. : 9.0	<pre>position degree : 61.0 tolerance degree : + 4.0</pre>
	T toterance degree . 4.0
(B) SETTING OF INJECTION PUMP	control lever
WITH GOVERNOR	position degree : 109.0
	tolerance degree : +- 4.0
GUIDE SLEEVE TRAVEL	T RATED SPEED
Rated speed rpm : 300	T rack travel mm : 10.80
guide sleeve	Rated speed rpm : 1385
travel mm : 1.05	+ Tolerance 1/min : +- 5
Tolerance mm : +- 0.25	+
4500	+ rack travel mm : 4.00
Rated speed rpm : 1500	+ Rated speed rpm : 1530 + Tolerance 1/min : +- 15
guide sleeve travel mm : 8.55	† Tolerance 1/min : +- 15
Tolerance mm : + 0.05	T rack travel mm : 0.50
TOTAL TIME THE STATE OF THE STA	+ Tolerance mm : +- 0.50
Rated speed rpm : 500	+ Rated speed rpm : 1650
guide steeve	+
travel mm : 2.55	†
Tolerance mm : +- 0.25	LOW IDLE
Rated speed rpm : 750	I COM IDEE
guide sleeve	
travel mm : 4.20	+ control lever
Tolerance mm : +- 0.10	position degree : 71.0
	+ tolerance degree : +- 4.0
CHINE OF EENE DOCTTION	t control lever
GUIDE SLEEVE POSITION	position degree : 22.0
Rated speed rpm : 1500	tolerance degree : +- 4.0
	+
Rack travel in mm : 16.50	† Testing:
Tolerance mm : +- 1.30	+
	Rated speed rpm : 300
FULL LOAD DELIVERY AT FULL LOAD	rack travel mm : 8.30 STOP Tolerance mm : + 0.10
TOLL LOAD DELIVERY AT FULL LOAD	T Octorance likit . F- 0.10
Rated speed rpm : 1300	+ Rated speed rpm : 100
Aneroid pressure	+
hPa : 900	+ CRT mm min. :> 9.70
Del. quantity	Detail
cm3/1000 strokes : 95.0	Rated speed rpm : 375
Tolerance cm3/1000 strokes : +- 1.0	
Check tolerance	TORQUE CONTROL
cm3/1000s. : +- 3.0	+
	•

Rated speed rpm	: 1300	+ Del. quantity
rack travel mm Tolerance mm	: 17.85 : +- 0.05	+ cm3/1000 strokes : 88.5 + Tolerance
		+ cm3/1000 strokes : +- 2.0
Rated speed rpm	: 700	+ Check tolerance
rack travel mm Tolerance mm	: 12.25 : + 0.05	+ cm3/1000s. : +- 4.0
toterance min	. +- 0.05	Aneroid pressure
Rated speed rpm	: 800	+ hPa : 900
rack travel mm	: 12.25	Rated speed rpm : 800
Tolerance mm	: +- 0.05	+ Del. quantity + cm3/1000 strokes : 90.0
Rated speed rpm	: 1125	+ Tolerance
rack travel mm Tolerance mm	: 11.85	+ cm3/1000 strokes : +- 2.0
Tolerance mm	: +- 0.05	+ Check tolerance + cm3/1000S. : + 4.0
ANEROID/ALTITUDE		Aneroid pressure
COMPENSATOR TEST		+ hPa : -
		Rated speed rpm : 500 Del. quantity
SETTING		cm3/1000 strokes : 54.0
	500	+ Tolerance
Rated speed rpm	: 500 : 900	+ cm3/1000 strokes : +- 1.0 + Check tolerance
rack travel mm	: 12.25	- cm3/1000s. : +- 3.0
Pressure hPa rack travel mm Tolerance mm	: + 0.05	+
MEASUREMENT		† BREAKAWAY
Pressure hPa	: -	1
Rated speed rpm	: 500	Rack travel in mm: 10.80
Dated aread are	. 500	Rated speed rpm : 1385 Tolerance 1/min : +- 5
Rated speed rpm	: 500	+ Toterance Timin : +- 3
Pressure hPa	: 160	+
rack travel mm		+
Tolerance mm	: + 0.10	+ STARTING FUEL DELIVERY
Pressure hPa	: 350	Rated speed rpm : 100
rack travel mm	: 1.45	+ rack travel mm : 14.90
Tolerance mm	: +- 0.05	+ Tolerance mm : + 0.10
		+ Del. quantity + cm3/1000 strokes : 93.0
START CUT-OUT		Tolerance
	400	- cm3/1000 strokes : + 7.5
Rated speed rpm Rated speed rpm	: > 100 : < 220	+ Check tolerance + cm3/1000S. : + 10.0
rated speed thu	. \ 620	T (1115) 10003. : 10.0
Check		+
speed 1/min	: > 80	†
Check speed 1/min	: < 240	LOW IDLE
speed I/mill		+
		Del. quantity
FUEL DELIVERY CHA	RACTERISTICS	+ cm3/1000 strokes : 13.0
Aneroid pressure		+ Tolerance + cm3/1000 strokes : +- 2.0
hPa	: 900	+ Check tolerance
Rated speed rpm	: 700	+ cm3/1000s. : +- 4.5

Spreed
Tolerance
cm3/1000 strokes : 5.5
Check tolerance
cm3/1000s. : 9.0

End of test specification sheet